

HEARING
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)
)
Application for)
Certification for the) Docket No. 98-AFC-4
SUNRISE COGENERATION AND)
POWER PROJECT (SUNRISE))
_____)

CALIFORNIA ENERGY COMMISSION
FIRST FLOOR HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

MONDAY, JANUARY 10, 2000
9:00 A.M.

Reported by:
Debi Baker
Contract No. 170-99-001

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

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David Rohy, Vice Chairman
Associate Member

STAFF PRESENT

Gary Fay, Hearing Officer

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Shawn Pittard, Adviser to Commissioner Moore

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1 P R O C E E D I N G S

2 9:00 a.m.

3 PRESIDING MEMBER MOORE: Good morning.

4 Welcome to the continuation of the evidentiary
5 hearings for the Sunrise Cogeneration and Power
6 Plant Project. I'm Michael Moore; I am a
7 Commissioner here at the California Energy
8 Commission and I am the Presiding Member of the
9 Committee that will be considering this.

10 My colleague, Dr. David Rohy, will be
11 here a little later in the morning, and join us,
12 catching up on the testimony at that time.

13 We have a number of topics that we are
14 going to try and get through today. I intend to
15 get fully through them, so before I turn this over
16 to Mr. Fay, seated on my right, who is our Hearing
17 Officer. And by the way, I should introduce my
18 Aide, Shawn Pittard, who is on my left, from my
19 office. And I assume that we'll be joined by Bob
20 Eller at some point, the Aide for Commissioner
21 Rohy.

22 So before I do turn it to Mr. Fay, let
23 me just lay down a couple of ground rules. First,
24 the nature of the topics that we face today is
25 necessarily complex, and will involve -- complex

1 not only in terms of topics, but also in terms of
2 how to approach each topic so that we get a very
3 thorough and understandable presentation of the
4 data in front of us.

5 For that reason, I'm going to tell
6 everyone up front that I do expect any witnesses
7 who address these topics to address just these
8 topics. That we don't need testimony going and
9 bleeding over into some of the other topic areas
10 that we've either already covered or will cover at
11 a later date. So I'm going to expect some rigor
12 in the way that people approach the topics.

13 Second, I'm going to ask you to be
14 succinct and hit the points straight up. I don't
15 know whether it will be necessary to impose a time
16 limit, but I'll just let you know ahead of time
17 that without trying to seem unreasonable, I
18 reserve the right to impose time deadlines in
19 order to get us back on track, get everyone to
20 keep focused on the topic.

21 I don't know whether that will be
22 necessary or not. In one of the previous hearings
23 I probably should have done it, and I'm sure that
24 you all remember the occasion, and I didn't. So,
25 I'll admonish myself for not having done that.

1 We have some procedural matters that I'd
2 like to ask Mr. Fay to address, and then we'll
3 take up the topics.

4 HEARING OFFICER FAY: Thank you,
5 Commissioner Moore. Good morning, everybody.
6 Today we'll be taking evidence on the topics of
7 air quality and public health impacts.

8 Tomorrow we will begin the day with
9 testimony on biological impacts. And as soon as
10 that is completed, move into soil and water
11 resources. And there are a few remaining matters
12 regarding worker safety that we'll take
13 information on after that. We are scheduled to
14 meet Thursday, as well, if needed.

15 I'd like to call your attention to a
16 handout labeled attachment A revised. And what it
17 is is a revision of attachment A from the hearing
18 order and notice for these hearings that was
19 issued on December 1st of last year. Please take
20 a look at that and inform us if we have left off
21 any of your witnesses. We tried to revise it
22 based on the information that we had.

23 We're going to briefly ask the parties
24 to touch on scheduling matters. And I would also
25 like to get your comments and suggestions for

1 organization in taking air quality testimony.

2 I had discussions with counsel for the
3 applicant and staff, as well. And they have
4 suggested that we do a full round of direct and
5 cross-examination on construction, and then a full
6 round on operation impacts, and then indirect
7 impacts and cumulative impacts. And then take
8 other remaining air quality topics that way.

9 The idea was to sort of cover that full
10 concept from all parties within as tight a
11 timeframe as we can. Otherwise, because there's
12 so much on air quality we might have two or three
13 hours between the time that we've heard direct and
14 the time we hear cross or hear the other parties'
15 direct testimony on the subject. And it does tend
16 to break our thinking up. And I don't for the
17 rest of you, but it's harder for me to follow.

18 I'd also like to just let the parties
19 know that on Thursday we will be having a
20 discussion on a briefing schedule, which topics to
21 be briefed and what the schedule will be. So I'd
22 like the parties to give that some thought and
23 come prepared on Thursday. If we do conclude by
24 the end of tomorrow we'll address briefing at the
25 close of the hearing at that time.

1 There was a petition to intervene filed;
2 it was docketed on December 29th, by the San Luis
3 Obispo Air Pollution Control District. Asking for
4 full intervention status. The Committee has not
5 issued an order yet on that, but that petition
6 will be denied as being extremely untimely.

7 The testimony from all the parties was
8 due to be filed on January 3rd, just a few days
9 after this petition was received. And it was the
10 Committee's considered opinion that there was no
11 way to allow this party in without jeopardizing
12 the schedule.

13 However, I want to point out to the
14 district, if they have a representative here, and
15 I believe they do, Mr. Allen, that as an agency
16 they have rather special status that members of
17 the public don't have. And their comments will be
18 considered by the staff, and the Committee expects
19 the staff to take their comments into account.

20 We not only received their petition to
21 intervene, but also some comments that they filed
22 on the substantive matters. So, in addition,
23 we'll be glad to receive their comments today at
24 the close of the portion of the hearing on air
25 quality if they wish.

1 Now, I would like to turn to the
2 applicant and ask if they have any news for us on
3 the scheduling matters. I know the staff has a
4 brief summary, as well. Mr. Grattan.

5 MR. GRATTAN: We have submitted a
6 recommended schedule and are prepared to discuss
7 this. I understand that the Committee has also
8 responded to that schedule, and that they had some
9 issues with it.

10 HEARING OFFICER FAY: Okay. The
11 proposed schedule you filed sometime ago,
12 several --

13 MR. GRATTAN: Oh, you're talking about
14 the schedule for the hearings today?

15 HEARING OFFICER FAY: Well, no, actually
16 I'm talking about the schedule for the rest of the
17 case.

18 MR. GRATTAN: Right.

19 HEARING OFFICER FAY: Just in general as
20 to what is outstanding, expected, whether we can
21 expect a complete record by the close of the
22 hearings today.

23 MR. GRATTAN: I'm having difficulty
24 hearing you, sir.

25 HEARING OFFICER FAY: All right. I was

1 speaking about the rest of the case --

2 MR. GRATTAN: Yes.

3 HEARING OFFICER FAY: -- at this point.

4 If you have no comments and would like to hold
5 off, I know Mr. Pryor is ready to go through some
6 points.

7 MR. GRATTAN: Yes, we've submitted what
8 we think is a reasonable schedule.

9 HEARING OFFICER FAY: Okay. Mr. Pryor.

10 MR. PRYOR: Good morning, Commissioner
11 Moore, Mr. Fay, Mr. Pittard. My name is Marc
12 Pryor, for the record, I'm the Commission's
13 Project Manager on the Sunrise case.

14 I'd like to address six technical areas
15 to bring you up to speed. We have made some
16 filings recently.

17 The first is in air quality. January 5,
18 2000 filing, staff has found it necessary to
19 revise its air quality testimony based on one, a
20 recent discussion with the San Joaquin Valley
21 Unified Air Pollution Control District regarding
22 rule 2201.

23 And two, recent information regarding
24 the viability of oxidizing soot filters. We have
25 submitted that testimony in part, memo on the 5th.

1 Regarding rule 2201, staff had
2 originally concluded that the district had not
3 complied with its own rule 2201, which is the
4 offset requirement of the new source review rule.
5 The district's interpretation of its rules allows
6 for some latitude in calculating the project's
7 potential to emit daily emissions limits, as long
8 as the facility can comply with the resulting
9 emission limits.

10 After considering the district's
11 comments on its authority to interpret its rules,
12 staff has concluded the Sunrise project will
13 comply with laws, ordinances, regulations and
14 standards, and has revised both the testimony and
15 conditions of certification AQ17 and AQ18.

16 Soot filters. Following recent
17 communications with two manufacturers of oxidizing
18 soot filters equipment that staff had proposed as
19 construction impacts mitigation, staff has
20 concluded that these filters are not appropriate
21 for offer of construction equipment. Instead
22 staff received information that oxidation
23 catalysts are appropriate and has revised its
24 testimony in condition AQC-2 to reflect this
25 change of position. Any other depth on that I

1 would defer to staff.

2 Final determination of compliance, the
3 district will conduct a hearing to address
4 California Unions for Reliable Energy's challenge
5 of the final determination of compliance, or DOC,
6 this Wednesday, January 12th.

7 Staff understands the documentation of
8 the district's decision will be provided directly
9 to the Committee as soon as possible.

10 Emission reduction credits.

11 PRESIDING MEMBER MOORE: Marc, could I
12 interrupt you for one second. What are you
13 interpreting as soon as possible to be? Do you
14 have any ideas after talking with staff --

15 MR. PRYOR: I would have to defer to Mr.
16 Fay; he's the one who informed me of this
17 conversation.

18 PRESIDING MEMBER MOORE: Right, I'll
19 have to obviously ask Mr. Fay that question.

20 HEARING OFFICER FAY: Well, do we have a
21 representative from the San Joaquin District here?

22 PRESIDING MEMBER MOORE: Okay, I'll re-
23 ask it at that point.

24 HEARING OFFICER FAY: My understanding
25 is that the process of simply having the clerk of

1 the board transfer an official memo of the vote
2 and the determination is what we would expect by
3 fax perhaps the day after, so that would be
4 Thursday morning.

5 MR. PRYOR: Finally, air quality
6 emission reduction credits. On January 6th staff
7 received a fax from USEPA regarding PM10 emission
8 reduction credits.

9 One source of offsets has not been
10 approved by USEPA. In addition, in a follow-up
11 telephone conversation staff determined that the
12 EPA may have concerns about one or more NOx
13 offsets.

14 Staff has not been able to discuss in
15 detail with EPA the subject, but we expect to know
16 what this means to scope by the close of the
17 hearings.

18 Again, on all these topics I would defer
19 to staff for more detail.

20 Worker safety and public health. At the
21 December 3, 1999 hearing, staff committed to
22 providing on January 3rd, which we did, testimony
23 addressing the issue of worker versus public
24 exposure.

25 The testimony addresses the difference

1 in development and application of exposure
2 criteria applicable to workplace and public
3 exposures. Staff has developed this testimony to
4 aid the Committee in evaluating the contradictory
5 analyses and testimony provided by staff and other
6 parties in the subject areas of worker safety,
7 public health.

8 Biological resources. The two areas
9 that are outstanding, major areas, they're
10 biological opinion and the Fish and Game 2081-B,
11 incidental take permit.

12 The biological opinion will be issued by
13 the U.S. Fish and Wildlife Service; however, we do
14 not know when the biological opinion will be
15 completed. However, a representative from the
16 Fish and Wildlife Service is scheduled to be
17 available at the biological resources portion of
18 the hearings in order to brief the Committee. We
19 do not expect any problems with this in the long
20 run.

21 Fish and Game's 2081-B incidental take
22 permit. Because Fish and Game considers the
23 Commission's final decision to be the CEQA
24 document, staff expects a permit will be issued
25 after the final decision, itself, is issued.

1 This would be consistent with the
2 procedure following in the La Paloma Generating
3 Project siting case. Staff does not foresee
4 problems associated with this permit.

5 Water resources. January 6th staff
6 issued data requests regarding wastewater
7 associated with the proposed project. The
8 applicant docketed its responses on January 7th.
9 Staff members from both the Energy Commission and
10 the Department of Toxic Substances Control are
11 studying the responses.

12 A public data request workshop has been
13 scheduled for Tuesday, January 18th, in this room.
14 However, depending on whether further
15 clarification is necessary by the applicant or for
16 the applicant, the workshop may not be held.

17 Land use and visual resources revisions.
18 Both the land use and visual resources testimony's
19 currently contained provisions for landscaping,
20 which are based upon information regarding local
21 zoning requirements of Kern County.

22 On December 17, 1999 staff was sent a
23 letter from Kern County Planning Department
24 stating the landscaping would not be required
25 because public access to the facility appears to

1 be limited.

2 Therefore, staff will be recommending
3 revisions to the land use and visual resources
4 testimonies and conditions of certification that
5 will remove the landscaping requirement.

6 MS. HOLMES: I have one other comment on
7 the schedule, and it has to do with the schedule
8 for hearing here today, or this week.

9 Given the fact that the issues that have
10 been raised in both the public health and the
11 worker safety topics are linked, I think it makes
12 more sense and I think it would be easier for
13 people to follow the testimony if staff at least
14 presented its worker safety and public health
15 testimony at the same time. That would be our
16 preference.

17 HEARING OFFICER FAY: And this is your
18 opinion on the separation between the two topics?

19 MS. HOLMES: I don't think there is much
20 separation as they've been presented. And the
21 purpose of staff's testimony is to try to explain
22 the distinctions between the two. And given that,
23 I think it makes a lot of sense to have the
24 witness explain both areas at the same time.

25 HEARING OFFICER FAY: I think that'll be

1 fine. And you'll do that at the time that the
2 panel comes on for --

3 MS. HOLMES: For public health.

4 HEARING OFFICER FAY: -- public health?

5 MS. HOLMES: That's fine.

6 HEARING OFFICER FAY: All right.

7 MS. POOLE: May I just ask a question
8 about that?

9 HEARING OFFICER FAY: Yes.

10 MS. POOLE: So worker safety will now
11 follow public health?

12 HEARING OFFICER FAY: No. I understood
13 this to be an exception that we will return to
14 worker safety and the follow-up on that, but that
15 staff has their comments on the separation between
16 these topics in their view. And they want to
17 present that at the time they present their
18 testimony on public health.

19 MS. HOLMES: We'd like to sponsor the
20 supplement on public health and worker safety at
21 the same time as we sponsor our public health
22 testimony. And have the witnesses testify in a
23 panel on those two topics at one time.

24 I don't believe the applicant has
25 separate public health and worker safety

1 testimony. I believe only CURE does. And I don't
2 have an opinion as to whether they should present
3 theirs together or separately.

4 HEARING OFFICER FAY: Yes, that was my
5 understanding, that they would present that --
6 they would present their opinion on the
7 distinction between the two topics at the same
8 time that they did their public health testimony.

9 MS. POOLE: So we will have an
10 opportunity, according to this schedule in
11 attachment A, to cross-examine staff's witness on
12 worker safety at that time?

13 HEARING OFFICER FAY: Sure, on that
14 topic.

15 MS. POOLE: Right. Okay.

16 HEARING OFFICER FAY: On the line
17 that --

18 MS. POOLE: I just wanted to --

19 HEARING OFFICER FAY: -- they draw
20 between the two issues.

21 MS. POOLE: -- clarify the order.

22 HEARING OFFICER FAY: Yes, certainly you
23 would.

24 And then we'll still get to your
25 testimony at the end after soil and water.

1 MS. POOLE: Okay.

2 HEARING OFFICER FAY: All right,
3 anything further, then? Yes, Mr. Grattan.

4 MR. GRATTAN: Just one comment on the
5 witness schedule that was handed out.

6 HEARING OFFICER FAY: Yes.

7 MR. GRATTAN: First, Mr. Clark has been
8 stricken from this. We have Mr. Clark here. He
9 has not submitted testimony, but should the
10 occasion arise and should the Committee want to
11 hear from Mr. Clark, he is here.

12 HEARING OFFICER FAY: And --

13 MR. GRATTAN: Yes?

14 HEARING OFFICER FAY: And in what
15 capacity?

16 MR. GRATTAN: That relates specifically
17 to start-ups.

18 HEARING OFFICER FAY: Start-ups.

19 MR. GRATTAN: In biological resources
20 and public health we have Mr. Booze, who again,
21 has not submitted testimony, but he is a
22 toxicologist, should the Committee desire to ask
23 him any questions. He will be available.

24 And let's see, in worker safety we do
25 have Mr. Bunker who sponsored the phase II study.

1 He will make himself available by telephone should
2 the Committee want to speak with him.

3 And Mr. Worl from Radian, who is a
4 worker health and safety expert, will be here
5 should the Committee wish to speak with him.

6 HEARING OFFICER FAY: Okay, thank you.
7 How do you spell Mr. Worl's --

8 MR. GRATTAN: W-o-r-l. Thank you.

9 HEARING OFFICER FAY: Thank you. And
10 that is worker safety, Mr. Worl?

11 MR. GRATTAN: Yes.

12 HEARING OFFICER FAY: Good, thank you
13 very much.

14 MS. POOLE: Mr. Hearing Officer, I do
15 have some comments on this, as well.

16 On the witness schedule, under air
17 quality we have listed as witnesses Fox and Sears.
18 Ms. Sears has fallen ill and will not be here
19 today. We have brought along Eric Winegar in her
20 place.

21 HEARING OFFICER FAY: Eric?

22 MS. POOLE: Winegar, W-i-n-e-g-a-r. We
23 are also sponsoring some additional witnesses in
24 air quality in response to staff's supplemental
25 testimony which was filed on the 5th regarding the

1 soot filters.

2 Those two witnesses are from a
3 manufacturer of soot filters. The names are Andy
4 Garcia and Stephen Frasc. That second name is
5 spelled F-r-a-s-c-h.

6 We also have some concerns about the
7 schedule. These are primarily in the areas of
8 biology and water. As staff explained, the data
9 responses on water did not come in until one
10 working day before these hearings. We've asked
11 for that information for ten months now. It's
12 only now become available.

13 It significantly affects our assessment
14 of both water and biology. And we have not been
15 given an adequate time to prepare a response, to
16 review these documents thorough, or to be able to
17 address them at the hearing scheduled for tomorrow
18 and Thursday.

19 In addition, staff has noticed a
20 workshop on both of these issues regarding this
21 information on the 18th. We believe the Committee
22 should schedule additional hearings in these areas
23 once the parties have been able to review this
24 information, discuss it and prepare testimony.

25 A further point in biology. Because the

1 biological opinion is not complete obviously we
2 haven't reviewed it. We have not had an adequate
3 opportunity to prepare cross-examination of the
4 Fish and Wildlife staff, because we don't know
5 what that person will state.

6 The Commission's rules do provide all
7 the parties with an opportunity to cross-examine
8 witnesses and to rebut evidence. So that's
9 another reason that we believe an additional
10 hearing should be scheduled for biology.

11 HEARING OFFICER FAY: You want to cross-
12 examine a representative of U.S. Fish and Wildlife
13 Service?

14 MS. POOLE: We may want to. I don't
15 know what that representative is going to say. We
16 don't have a biological opinion yet. We need to
17 review that document and then make that
18 determination.

19 HEARING OFFICER FAY: All right.

20 MS. HOLMES: If I could just --

21 HEARING OFFICER FAY: Ms. Holmes, sure.

22 MS. HOLMES: -- refresh your
23 recollection, there is going to be a
24 representative from the U.S. Fish and Wildlife
25 Service here for the biology portion of the

1 hearing tomorrow.

2 HEARING OFFICER FAY: But not sponsoring
3 the biological opinion?

4 MS. HOLMES: No, but I believe she will
5 be prepared to talk about where she is and how it
6 relates to staff's testimony which she has
7 reviewed in the FSA.

8 HEARING OFFICER FAY: All right, and she
9 would be available for cross-examination?

10 MS. HOLMES: Well, I don't know if we
11 technically want to call it cross-examination if
12 she's not sponsoring a document. But I know she's
13 available to answer questions.

14 HEARING OFFICER FAY: Okay. And staff
15 will make her available?

16 MS. HOLMES: Yes.

17 HEARING OFFICER FAY: All right.

18 MS. POOLE: However, if she's not
19 completed her review and has not come to any
20 conclusions in the biological opinion, that won't
21 provide us an adequate opportunity to discuss with
22 her her conclusions in that document, or the basis
23 of her conclusions.

24 HEARING OFFICER FAY: What we did see
25 was something similar in the Sutter case, and I

1 believe that the Committee, at that time,
2 tentatively relied upon the representations made
3 by staff of the status and held the record open
4 pending final opinion to see whether, in fact, it
5 did conform to what was offered, the opinions
6 offered at the time of the biological hearing.

7 As it turned out, the formal opinion did
8 support those opinions, and there was no need to
9 take additional evidence.

10 But the Committee will take that under
11 advisement.

12 And the same with your concern about
13 water. I think that's something we'll have to
14 discuss, and possibly have to see where we are
15 after we do take what evidence we can tomorrow or
16 on Thursday.

17 MS. POOLE: Staff did not mention
18 whether there would be a representative from DTSC
19 here to discuss those matters. Is that the case?

20 HEARING OFFICER FAY: Ms. Holmes?

21 MS. HOLMES: Which matters are we
22 referring to?

23 MS. POOLE: Water quality.

24 MS. HOLMES: We've asked that DTSC
25 provide a representative for the hearings, but we

1 have not yet received a response. I'll let you
2 know if we hear anything.

3 HEARING OFFICER FAY: Okay. Anything
4 further?

5 MS. POOLE: Simply to point out that the
6 Commission's rules do require that responsible
7 agencies' assessments be provided, I believe it's
8 14 days before the hearings, and we won't have
9 that in this case.

10 HEARING OFFICER FAY: All right,
11 anything further, then?

12 MR. GALATI: Mr. Fay, is I could please
13 address what counsel for CURE has raised.

14 First, I'd like to address the soot
15 filter issue, and with respect to affirmatively
16 sponsoring soot filter testimony. We have
17 provided additional experts to be here should the
18 Committee wish to question them in a cross-
19 examination standpoint or request additional
20 information.

21 We are not -- none of our witnesses who
22 have not submitted written testimony will be
23 putting any affirmative evidence on unless the
24 Committee asks them those questions. And we would
25 object to affirmative evidence that we have not

1 had an opportunity to take a look at based on the
2 soot filters, we would not object to the Committee
3 asking questions of them if they so desired.

4 With respect to the water issue and the
5 claim that we have been withholding information
6 for ten months, I'd point out that data request
7 was the subject of a motion to compel. And that
8 motion to compel was -- the order did not order
9 that Sunrise provide that information.

10 And so for the record, Sunrise was
11 acting under the motion to compel. And, although
12 we disagree with the relevance of that
13 information, we did provide it to staff in order
14 to preserve the schedule. And they have had that
15 for five days.

16 With respect to DTSC, and the
17 requirement that they be here as a responsible
18 agency, no permit is required by DTSC as part of
19 this process. They are not a responsible agency.
20 They should be treated like an agency who are
21 commenting.

22 What has been alleged is that they be
23 treated the same as an air district who is
24 required to do a determination of compliance under
25 the statute and regulations. That is not the case

1 here. DTSC does not need to do a determination of
2 compliance. It is the Energy Commission Staff's
3 responsibility and capability of making a
4 determination of whether this project complies
5 with LORS.

6 In addition, I would point out that on
7 the order for these hearings it does state that
8 members of the public and interested government
9 agencies are invited to attend, and they may offer
10 unsworn public comment upon the matters discussed.
11 These public comments may be entered into the
12 record of the proceeding and may be used to
13 supplement or explain the evidential record.
14 Public comments by themselves, however, are not
15 sufficient to support a finding of fact or a
16 decision on an issue.

17 MS. POOLE: May I respond?

18 HEARING OFFICER FAY: Yes, go ahead.

19 Briefly, Ms. Poole, because I don't want to get in
20 a big back-and-forth. I've got to get to Mr.
21 DeCuir, too.

22 MS. POOLE: Two quick points. One on
23 the soot filters. We would have been more than
24 happy to provide affirmative written evidence on
25 the soot filters at the time we provided our

1 testimony. We believed staff agreed with us on
2 that issue based on their testimony at the time.

3 After the due date for our testimony,
4 three working days ago, the staff changed its mind
5 and submitted new testimony. That's why we're in
6 the position today of having to address this for
7 the first time.

8 And on the second issue that no permit
9 required by DTSC. We don't know that yet. That's
10 the point of having DTSC come in and testify.
11 DTSC could very well be a responsible agency in
12 this proceeding.

13 HEARING OFFICER FAY: Well, you may be
14 right, but you can't use that to then apply a
15 regulation that is used for responsible agencies.
16 So, you know, we'll take this concern under
17 advisement. But the 14-day rule does not
18 automatically apply just because you claim that
19 DTSC is a responsible agency.

20 MS. POOLE: Our suggestion is that we at
21 least wait and see what DTSC's opinion of this
22 matter is, and take it from there.

23 HEARING OFFICER FAY: Well, I think the
24 Committee will be holding off its ruling on your
25 request until we see how the record unfolds, and

1 where we are. Especially since we've got a
2 workshop following the hearing. That certainly
3 raises the question of whether everything will be
4 resolved that the Committee needs.

5 In terms of Mr. Galati's accurate
6 reading of the Committee order, I do want to point
7 out that we have a request from the San Luis
8 Obispo Air Pollution Control District to be able
9 to make their comments before they have to leave.
10 And, Mr. Allen, could you identify yourself?

11 Oh, hello. Yes, we'll be sure to fit
12 you into the schedule before your deadline. And I
13 can't tell when that might be best, but what I'd
14 like to do, both for the Committee's benefit and
15 for yours, is to fit into the record at the point
16 where it seems to make the most sense. Perhaps
17 just before the district testifies on the DOC.

18 So, if that's acceptable we'd like to
19 hold off for just a little bit to get your
20 comments. But we'll certainly take them.

21 All right, is there any objection to
22 proceeding with the air quality testimony then in
23 the order that I indicated so that -- and I will
24 get to you, Mr. DeCuir -- so that we can sort of
25 keep these sections together?

1 Okay, I hear none, and that's the way
2 we'll go ahead.

3 Mr. DeCuir.

4 MR. DeCUIR: Thank you very much, Mr.
5 Fay, Members of the Committee. I want to just
6 make one suggestion regarding the order of
7 witnesses.

8 The Transmission Agency's witness, Mr.
9 Greg Salyer, is listed last in the order on air
10 quality. And I thought because the subject matter
11 of his testimony was the same as the subject
12 matter of Mr. Mark Hesters' testimony, the staff
13 witness who filed the December 17, 1999 appendix
14 B, that the logic of putting those two witnesses
15 in the same general position on the schedule might
16 make it convenient to understand the flow of the
17 subject matter.

18 HEARING OFFICER FAY: That's a good
19 suggestion and I think we'll probably take that.

20 All right, anything further, then,
21 before we get started? Good. Let's begin taking
22 testimony on air quality construction impacts, and
23 we'll ask the applicant if they have their
24 witness.

25 MR. GALATI: Thank you, Mr. Fay. I

1 think we'll vacate and make room for the panel.

2 HEARING OFFICER FAY: How many witnesses
3 will you be bringing up?

4 MR. GALATI: We have three.

5 HEARING OFFICER FAY: Three. Let's go
6 off the record for a moment, please.

7 (Off the record.)

8 HEARING OFFICER FAY: We're back on the
9 record.

10 MR. GALATI: Thank you. If I could
11 briefly explain, on the panel I have Mr. Arnie
12 Srackangast -- I knew I was going to do that --
13 who will testify on the meteorological data that
14 was used in the analysis.

15 I have Paula Fields who will testify
16 both on the modeling and comments on CURE's
17 testimony. And also have Dave Stein who will also
18 testify along those lines with construction
19 emissions.

20 So, with that, if I can go ahead and
21 proceed with Mr. --

22 HEARING OFFICER FAY: Has Mr. Stein been
23 previously sworn?

24 MR. GALATI: I don't believe anybody --

25 HEARING OFFICER FAY: Okay.

1 MR. GALATI: Yeah, actually Mr. Stein
2 has been.

3 HEARING OFFICER FAY: The other two
4 witnesses, please swear them at this time.
5 Whereupon,

6 ARNOLD R. SRACKANGAST and PAULA G. FIELDS
7 were called as witnesses herein, and after first
8 having been duly sworn, were examined and
9 testified as follows:

10 HEARING OFFICER FAY: And, Mr. Stein,
11 you remain under oath.

12 DIRECT EXAMINATION

13 BY MR. GALATI:

14 Q Mr. Stein, please give your name,
15 address and current employment.

16 MR. STEIN: My name is David Stein; my
17 business address is 1990 North California
18 Boulevard in Walnut Creek, California. And I am
19 employed by Radian International.

20 MR. GALATI: And, Mr. Stein, can you
21 briefly summarize your qualifications for the
22 Committee?

23 MR. STEIN: Sure. I'm an Environmental
24 Engineer. I have approximately 23 years of
25 experience managing and coordinating

1 multidisciplinary environmental projects, large
2 development projects, including many independent
3 power projects and cogeneration projects.

4 I hold a masters degree in environmental
5 health engineering from the University of Texas,
6 and bachelors degrees in biological sciences and
7 environmental engineering from the University of
8 California.

9 I have worked both as a consultant for
10 the Commission Staff, reviewing applications
11 before this Commission in the area of air quality,
12 as well as representing applicants, and have been
13 involved in over ten past or present siting cases.

14 MR. GALATI: And, Ms. Fields, could you
15 please give your name, address and current
16 employment?

17 MS. FIELDS: My name is Paula Fields,
18 and my work address is 10375 Old Placerville Road
19 in Sacramento. And I'm an employee of Radian
20 International in Sacramento.

21 MR. GALATI: Briefly summarize your
22 qualifications for the Committee?

23 MS. FIELDS: Certainly. I'm a Senior
24 Environmental Engineer and Project Manager for
25 Radian. I have approximately 13 years of

1 experience in the field, as well as in the utility
2 industry prior to my environmental engineering
3 experience.

4 I work primarily as a project manager
5 overseeing air quality studies, emissions
6 inventories, PM10, especially PM10 -- development,
7 and overseeing regional and local modeling
8 studies.

9 I have worked on approximately six or
10 eight permitting projects in the last five years
11 while with Radian.

12 MR. GALATI: And, Mr. Srackangast, could
13 you please give your name, address and current
14 employment?

15 MR. SRACKANGAST: Sure. My given name
16 is Arnold R. Srackangast. My business address is
17 8501 North Mopack Boulevard, Austin, Texas 78759.
18 I am employed by Radian International. I'm a
19 Senior Meteorologist with 14 years experience in
20 managing and performing atmospheric dispersion
21 studies in support of air quality permitting
22 efforts.

23 I've served as the air dispersion task
24 leader in over 50 successful air permitting
25 efforts for various energy-related and industrial

1 sources.

2 I am responsible for conducting the
3 analysis which involves directing engineers and
4 scientists in developing meteorological emission
5 inputs required by the model. In this particular
6 project I served as peer reviewer related to the
7 meteorological data.

8 MR. GALATI: Mr. Stein, have you
9 previously prepared and submitted written
10 testimony in this AFC proceeding?

11 MR. STEIN: Yes, I have.

12 MR. GALATI: And, Ms. Fields?

13 MS. FIELDS: Yes, I have.

14 MR. GALATI: And, Mr. Srackangast?

15 MR. SRACKANGAST: Yes, I have.

16 MR. GALATI: If it's okay with the
17 Committee I'll have Paula Fields summarize the
18 panel's testimony.

19 Wait, one procedural -- can each of you
20 affirm that testimony under oath, today?

21 MR. STEIN: Yes.

22 MS. FIELDS: Yes, I can.

23 MR. SRACKANGAST: Yes, I can.

24 HEARING OFFICER FAY: And why don't we
25 get that marked for exhibit.

1 MR. GALATI: Several separate submitted
2 testimonies. The first is entitled, testimony air
3 quality not including meteorology, by Paula
4 Fields.

5 HEARING OFFICER FAY: Exhibit 49.

6 MR. GALATI: The second is air quality,
7 meteorology, by Arnold Srackangast.

8 HEARING OFFICER FAY: Exhibit 50.

9 MR. GALATI: And the third is entitled,
10 testimony air quality, combustion turbine PM10
11 emission rate and emission reduction credits, by
12 David Stein.

13 HEARING OFFICER FAY: Exhibit 51.

14 MR. GALATI: Mr. Stein, do you have any
15 corrections or modifications to your portion of
16 the testimony?

17 MR. STEIN: No, I don't.

18 MR. GALATI: Mr. Srackangast, do you
19 have any corrections or modifications to your
20 portion of that testimony?

21 MR. SRACKANGAST: I do not.

22 MR. GALATI: Ms. Fields, do you have any
23 corrections or modifications to your portion of
24 that testimony?

25 MS. FIELDS: Yes, I do. I have

1 approximately six corrections, so bear with me and
2 we'll page through these.

3 The first one is in section 6B1B, which
4 is on page 12 of my testimony. I'd just like to
5 preface this for a moment in order to explain the
6 reason for most of these corrections.

7 When we reviewed CURE's comments on the
8 PSA it was not clear to us the modeling
9 methodology that they used in order to develop
10 what they called their simultaneous ozone and
11 background concentrations. And so our comments
12 reflect a different understanding of what we were
13 able to gain after reviewing their testimony.

14 So we'd like to modify our testimony to
15 make it more correct now, in light of their
16 testimony.

17 At the bottom of page 12, the last
18 sentence, it says, "Also, if two wells are drilled
19 simultaneously" strike that sentence.

20 On the following page, table air5, the
21 number 182 under adjusted impact, we'd like to
22 change that to 273.

23 MS. HOLMES: I'm sorry, could you repeat
24 that?

25 MS. FIELDS: Yes. See on the first line

1 for the NO2 impact, adjusted impact 182? That
2 needs to be changed to 273.

3 MS. HOLMES: For NO2?

4 MS. FIELDS: Yes, for NO2. And then
5 following across the adjusted total impact would
6 be 370.

7 And then we'd like to modify the
8 footnote A. Added to that product would be plus
9 91. Which parenthetically you could say is a
10 conservative OLM component.

11 The next correction is on page 19, which
12 is section 6D2C, table air9. The NO2 pound per
13 hour per stack rate for Sunrise, which is the
14 farthest right-hand column, the 26.8 should be
15 changed to 41.6.

16 The next change on page 20, the bottom
17 of the page, the fourth line from the bottom.
18 This is section 6D2C. Where it says PM10 ERCs,
19 strike PM10.

20 Two more changes. On page 24, which is
21 section 6F, issue 3, item 2. Under item 2 at the
22 end of the third sentence, which ends "Fellows" .
23 I'll read the last part of that. "Instead of
24 using the NO2 concentration of 97 mcg/cubic meter
25 measured at Fellows" insert "and performing an

1 hour-by-hour calculation of the ozone
2 contribution." And performing an hour-by-hour
3 calculation of the ozone contribution, period.
4 Then strike the remainder of that paragraph.

5 Then the last correction is on page 26,
6 item 6F, issue 6, the bottom paragraph. Strike
7 that paragraph and replace it with the following
8 sentence -- the paragraph that begins with
9 "However" at the bottom of the page. Strike that
10 paragraph and replace it with, "Our adjusted well
11 drilling impacts in table air5 show that well
12 drilling impacts will not exceed the one-hour NO2
13 AAQS."

14 I'll repeat it: "Our adjusted well
15 drilling impacts in table air5 show that well
16 drilling impacts will not exceed the one-hour NO2
17 AAQS."

18 Those are all the corrections.

19 MR. GALATI: Ms. Fields, with those
20 modifications and corrections, do they change any
21 of your conclusions?

22 MS. FIELDS: No, they don't.

23 MR. GALATI: Now, Ms. Fields, could you
24 please summarize the testimony of the panel?

25 MS. FIELDS: Certainly. First I'll read

1 the list of exhibits that applies to the summary
2 of our testimony related to project construction.

3 Exhibit 49, Sunrise written testimony,
4 air quality, not including meteorology.

5 Exhibit 50, Sunrise written testimony,
6 air quality, meteorology.

7 Exhibit 51, Sunrise written testimony,
8 air quality, combustion turbine PM10 emission rate
9 and emission reduction credits.

10 Exhibit 1, AFC, section 8.1. Exhibit 1,
11 AFC, appendix B. Exhibit unnumbered, prevention
12 of significant deterioration permit application.

13 MR. GALATI: That has been previously
14 docketed. Ask that that be identified as exhibit
15 52.

16 HEARING OFFICER FAY: All right, could
17 we have that identified again?

18 MS. FIELDS: Yes. It's the PSD permit
19 application, prevention of significant
20 deterioration permit application.

21 HEARING OFFICER FAY: And when was that
22 filed -- docketed? Do you have a date on that?

23 MR. GALATI: I don't have a date, but
24 we'll get that --

25 HEARING OFFICER FAY: Do you have a

1 copy --

2 PRESIDING MEMBER MOORE: Copy with a
3 docket date stamp on the front?

4 MR. GALATI: We'll get that, it's in a
5 box back here.

6 HEARING OFFICER FAY: Okay. We'll ask
7 that you bring that up to the dias.

8 MS. FIELDS: Exhibit 5, response to CEC
9 data request responses. Exhibit 6, response to
10 CURE data requests 25 A through B, 26 A through B,
11 27 A through C, 31 B through D, 69B, 69B1 through
12 6, 72A through C, 73, 74, 76A through B.

13 Exhibit 7, Sunrise comments on the
14 preliminary determination of compliance. Exhibit
15 unnumbered, Sunrise comments on PSA.

16 MR. GALATI: Mr. Fay, that was
17 previously given an exhibit number, and I can't
18 find that in my notes. It's the Sunrise comments
19 on the PSA. I believe it was given an exhibit
20 number below 10.

21 HEARING OFFICER FAY: All right. I
22 think you've identified it well enough.

23 MS. FIELDS: Okay.

24 HEARING OFFICER FAY: If it's been
25 previously given an exhibit number.

1 MR. GALATI: Exhibit 7, thank you.

2 MS. FIELDS: No. Well, 7 is the
3 comments on the PDOC. And then the last one is
4 exhibit unnumbered, letter from San Joaquin Valley
5 Unified Air Pollution Control District to Robert
6 Therkelson, dated December 2, 1999.

7 MR. GALATI: We'll mark that exhibit 53.

8 MS. POOLE: Could you repeat that,
9 please?

10 MS. FIELDS: The letter from San Joaquin
11 Valley Air Pollution Control District to Robert
12 Therkelson, dated December 2, 1999.

13 MR. GALATI: If I could have her go
14 forward and summarize the testimony while I make
15 sure we track down that one exhibit.

16 HEARING OFFICER FAY: I'll ask at this
17 time, is there objection to receiving these
18 exhibits? I hear none, so --

19 MS. HOLMES: No.

20 MS. POOLE: I'm not sure that the PSD
21 application has actually been docketed. That's
22 been marked as exhibit 52.

23 HEARING OFFICER FAY: All right, we'll
24 withhold ruling on that until we see the docketed
25 copy that's been promised.

1 Any objection to the other exhibits
2 being received? I hear none, so with the
3 exception of exhibit 52, they're received.

4 MR. GALATI: Ms. Fields, can you go
5 ahead and summarize your testimony?

6 MS. FIELDS: Certainly. This is a
7 summary of testimony with regard to project
8 construction, air quality project construction.

9 I supervised and assisted in the
10 preparation of the AFC and revisions, responses to
11 CEC and CURE data requests, the Sunrise comments
12 on the PSA and the written testimony pertaining to
13 air quality impacts from construction of the
14 Sunrise project.

15 In our air quality analysis we estimated
16 construction emissions using USEPA approved
17 emission factors and recommended load factors. We
18 modeled the short-term and annual impacts of
19 criteria pollutants using a USEPA approved model,
20 and USEPA and district approved meteorological
21 data from Fellows, California.

22 Our modelings show that the Sunrise
23 project construction emissions will not cause any
24 new violations of the state and federal ambient
25 air quality standards.

1 Sunrise project construction will
2 contribute to existing violations of the state
3 ambient air quality standard for PM10. However,
4 Sunrise will provide PM10 offsets to mitigate
5 these impacts.

6 Sunrise will provide mitigation for
7 construction VOC, NOx, SOx and PM10 emissions by
8 surrendering its ERCs prior to commencement of
9 construction as required by condition AQ18.

10 These ERCs, along with conditions AQC-1
11 and AQC-2, with the one exception that I will
12 explain below, insure that no significant air
13 quality impacts will occur due to construction of
14 the Sunrise project.

15 We agree with staff's conclusions in the
16 FSA as updated in their revised air quality
17 testimony pertaining to Sunrise project
18 construction, and the conditions of certification
19 AQC-1 and AQC-2 with one exception.

20 We do not agree that oxidizing catalysts
21 are necessary to mitigate construction equipment
22 exhaust impacts. As demonstrated by our modeling
23 analysis, impacts from these emissions are not
24 significant and will be offset. Therefore, post-
25 combustion control of construction equipment

1 exhaust is not warranted.

2 Based on the ERCs to be provided and
3 compliance with the conditions of certification
4 the impacts of construction of the Sunrise project
5 are insignificant, and the project complies with
6 laws, ordinances, regulations and standards.

7 Our written air quality testimonies
8 address and review CURE's comments on the PSA
9 relating to construction of the Sunrise project.
10 In particular, CURE contends that the modeling
11 procedure used by us in the AFC underestimates the
12 one-hour NO2 construction impact.

13 We revised our emissions by using the
14 most recent USEPA emission factors and revised our
15 modeling procedure based on more conservative
16 parameters. Our revised modeling confirms our
17 original finding, that no violation of the one-
18 hour NO2 standard will occur during construction
19 of the Sunrise project.

20 Also I would like to point out that even
21 when CURE's modeling procedure is used, along with
22 the revised emissions and the one-hour -- that the
23 one-hour NO2 violation is not predicted to be
24 exceeded.

25 Thank you.

1 MR. GALATI: Mr. Srackangast, did you
2 review CURE's comments on the PSA regarding the
3 different meteorological data sets that would be
4 available to analyze the project?

5 MR. SRACKANGAST: Yes, I did.

6 MR. GALATI: And what were those sets?

7 MR. SRACKANGAST: There were two data
8 sets discussed. We, as Ms. Fields already
9 mentioned, used Fellows, California. CURE
10 contends that McKittrick should have been used.
11 That's another site in the region.

12 MR. GALATI: And with respect to the
13 relationship between that data set and the
14 terrain, could you please comment on both data
15 sets?

16 MR. SRACKANGAST: Sure. The Fellows
17 monitoring site is approximately four kilometers
18 from the project site, or less than three miles.
19 The McKittrick data set is over nine miles away,
20 which is quite a bit further.

21 When we first set out to do the analysis
22 for this project we went through a siting
23 evaluation of which site would be most
24 appropriate.

25 There are four aspects of selecting

1 meteorological data according to the USEPA
2 guidelines. They are proximity to the site; they
3 are with respect to length of the record, they
4 also deal with issues related to terrain.

5 And when we evaluated all of those
6 criteria the Fellows was the most appropriate to
7 use because it was the closest, and the terrain is
8 very similar to the project site. Again, it's
9 only within three miles.

10 The project is along the eastern edge of
11 the Temblor Range, which is a significant mountain
12 range in the region. Meteorology is very site
13 specific when you're in complex terrain, so the
14 closer in proximity you are to a site, that's one
15 of the most important criteria when you're looking
16 for meteorological data to use in the modeling.
17 So, that was the aspect that we went on.

18 We originally proposed to use in our
19 modeling protocol five years worth of data to
20 model as far as length of record. We subsequently
21 found that there was not data to meet the
22 regulatory requirements of 90 percent data capture
23 for all those years.

24 We approached the district, EPA, and the
25 Commission and they agreed and approved that one

1 year was sufficient to use in the modeling. And
2 that's what was used.

3 MR. GALATI: And what was the terrain
4 associated with the McKittrick data set?

5 MR. SRACKANGAST: The McKittrick data
6 site is inferior to Fellows because it is actually
7 located over six miles away from the ridge line in
8 the Buena Vista Valley. It's important for
9 meteorological purposes to be close to the
10 mountain range because of drainage winds and
11 upslope winds that happen during the daytime.

12 So, as far as proximity, McKittrick was
13 inferior to Fellows because of its distance from
14 the terrain.

15 MR. GALATI: Okay, thank you. I have no
16 further questions at this point. Turn the panel
17 over for cross-examination.

18 HEARING OFFICER FAY: All right, and
19 this is regarding construction impacts.

20 MR. GALATI: Correct, construction
21 impacts.

22 HEARING OFFICER FAY: All right. Staff?

23 MS. HOLMES: We have no questions.

24 HEARING OFFICER FAY: Does CURE have
25 cross-examination?

1 MS. POOLE: Oh, I'm sorry, yes, I do
2 have some questions. May I have just one moment?

3 HEARING OFFICER FAY: Sure.

4 (Pause.)

5 CROSS-EXAMINATION

6 BY MS. POOLE:

7 Q I believe this first question is for Ms.
8 Fields.

9 Ms. Fields, on pages 9 and 10 of your
10 testimony you identify a series of mitigation
11 measures for construction dust impacts. The first
12 measure listed is an on-site water truck.

13 How much will this measure reduce PM10
14 emissions in terms of pounds per hour or percent?

15 MS. FIELDS: I don't know the answer to
16 that question just off the top of my head. I know
17 that fugitive dust control measures in general are
18 known to provide up to 90 percent control
19 efficiency.

20 MS. POOLE: This measure in particular?

21 MS. FIELDS: This measure in combination
22 with others, typically.

23 PRESIDING MEMBER MOORE: Do you have
24 another one in mind, Ms. Poole?

25 MS. POOLE: Well, there are a series of

1 measures identified here.

2 PRESIDING MEMBER MOORE: I guess I'm
3 asking in the qualified sense. You're asking as
4 though this doesn't work. Do you have evidence
5 that suggests that this measure for fugitive dust
6 reduction doesn't work?

7 MS. POOLE: No. I'm wondering how
8 effective this particular measure is. If the
9 witness --

10 PRESIDING MEMBER MOORE: Well, it's used
11 at just about every construction site I've ever
12 seen. And so if what you're maintaining or what
13 you're raising is the issue that maybe it doesn't
14 work, then I'd like to see the source for that.

15 MS. POOLE: That's not my concern,
16 Commissioner. I'm just wondering whether we can
17 quantify the extent of control provided by these
18 measures.

19 PRESIDING MEMBER MOORE: Have you ever
20 seen it quantified in any of the other cases that
21 you've worked on?

22 MS. POOLE: I --

23 PRESIDING MEMBER MOORE: Your consultant
24 is nodding, so I'm assuming that that means that a
25 reference is going to come my way pretty soon.

1 MS. POOLE: We'll follow up with that.

2 BY MS. POOLE:

3 Q Do any of these measures identified on
4 pages 9 and 10 reduce construction equipment
5 exhaust emissions?

6 MS. FIELDS: I would have to say in
7 general, no; but, their intention is not to reduce
8 exhaust emissions, it's to reduce fugitive dust.

9 MS. POOLE: Thank you. On page 7 of
10 your testimony you state that you base fugitive
11 dust emissions on a control effectiveness of 50
12 percent from implementation of fugitive dust
13 control measures recommended in USEPA's guidance.

14 What are these measures that you assume
15 are in place?

16 MS. FIELDS: Those would be similar in
17 nature to those that are mentioned under AQC-1.

18 PRESIDING MEMBER MOORE: Ms. Poole, are
19 you asking for the EPA, for the cite on that,
20 where it's referenced in the EPA guidelines?

21 MS. POOLE: No, the witness has answered
22 my question.

23 PRESIDING MEMBER MOORE: Okay, I --

24 MR. GALATI: I would just briefly like
25 to lodge an objection, mischaracterizes the

1 testimony. Control effectiveness of 50 percent
2 from implementation of fugitive dust control
3 measures recommended in USEPA guidance.

4 PRESIDING MEMBER MOORE: How did it get
5 mischaracterized? I missed that.

6 MR. GALATI: Yeah, I think that she
7 contends that the -- or she stated that the
8 witnesses filed testimony for certain control
9 measures that she assumed. It appears clear from
10 the testimony that she used the 50 percent as
11 recommended in the USEPA guidance.

12 It mischaracterizes that she assumes
13 certain measures were in place.

14 PRESIDING MEMBER MOORE: All right, I
15 don't think she mischaracterized it, but I accept
16 what you're saying as a clarification.

17 You know, just for my own edification,
18 and maybe I just didn't look at this carefully
19 enough, is there an EPA document in which this is
20 contained where I might have looked and seen a
21 footnote that said, EPA publication 89-dot-dot-
22 dot-dot? Is there such an animal, so that this
23 reference, when they say EPA guidance, that there
24 is a -- I'm assuming that there's a manual out
25 there --

1 MS. FIELDS: I believe it was referenced
2 in the AFC, in the original application. But I
3 would like to clarify one thing. The use of the
4 50 percent control efficiency is typical, in that
5 it's done a lot of times in regional studies,
6 PM10 -- development.

7 The guidance, I believe, says that 50
8 percent is typical if a combination of controls
9 are used.

10 We expect, with compliance and employing
11 those controls under AQC-1 to achieve much better
12 control than 50 percent.

13 The controls listed on that bullet of
14 listed controls are more extensive than those in
15 the EPA guidance.

16 PRESIDING MEMBER MOORE: You're saying
17 it's a minimum?

18 MS. FIELDS: Fifty percent would be a
19 minimum, yes.

20 MS. POOLE: But you can't quantify the
21 extent of control provided by those bulleted
22 items, can you?

23 MS. FIELDS: I haven't. I haven't done
24 that yet. Certainly it would be greater than 50
25 percent.

1 MS. POOLE: If you haven't quantified it
2 how do you know that?

3 MS. FIELDS: Because these controls are
4 more extensive than those listed in the EPA
5 guidance.

6 MS. POOLE: On page 11 you state that
7 you object to the use of soot filters because,
8 quote, "there is no significant impact expected
9 from CO emissions from construction equipment,
10 which would be the reason to install soot
11 filters." Unquote.

12 Do soot filters remove CO?

13 MR. STEIN: Oxidizing soot filters
14 would, yes.

15 MS. POOLE: Is there any other reason to
16 install soot filters?

17 MR. STEIN: Well, we don't believe there
18 is because the construction emissions have been
19 fully offset by emission reduction credits that
20 have been provided, or will be provided by the
21 project prior to commencement of construction.

22 MS. POOLE: Do soot filters remove other
23 pollutants?

24 MR. STEIN: I have seen information that
25 suggests that yes, there are other pollutants that

1 are removed by soot filters.

2 MS. POOLE: What are those pollutants?

3 MR. STEIN: That would be PM10 and VOC.

4 MS. POOLE: Has the California Air
5 Resources Board found that diesel particulate
6 matter emissions are toxic and carcinogenic?

7 MR. STEIN: Yes.

8 MS. POOLE: Does construction equipment
9 emit diesel particulate matter?

10 MR. STEIN: When it's fired on diesel,
11 yes, it would.

12 MS. POOLE: Does the project plan to
13 fire their construction equipment on anything
14 other than diesel?

15 MR. STEIN: My understanding is that the
16 equipment will be diesel fired.

17 MS. POOLE: Ms. Fields, --

18 MR. STEIN: Excuse me, Ms. Poole, I just
19 want to, if I could, clarify my last response.
20 There may be some equipment out in the field that
21 would be fired on gasoline.

22 MS. POOLE: Ms. Fields, in your
23 testimony you cite a CARB web address as the
24 source of your stack parameters for revised
25 modeling of construction.

1 MS. FIELDS: Could I get a page number,
2 please?

3 MS. POOLE: I believe it's page 9. It's
4 the first full paragraph on page 9, in the middle
5 of that paragraph.

6 MS. FIELDS: Thank you.

7 MS. POOLE: We looked on that website
8 and found two possible sources for the stack
9 parameters. One on construction of a housing
10 development, and one on drill rigs. Which did you
11 use?

12 MR. STEIN: We used the one on drill
13 rigs.

14 MS. POOLE: I have a copy of that drill
15 rig discussion from the website. I'm going to
16 give you a copy of this, and could you show me,
17 please, where you found those parameters?

18 Could you show me particularly where you
19 found the parameter for stack height?

20 MR. STEIN: On page 3 of that document
21 the item number 2. We were just following the
22 same methodology that they apparently had
23 followed, which was to assume that all stack
24 heights are 3 meters.

25 MS. POOLE: And stack diameter?

1 MR. STEIN: The stack diameter is shown
2 to be 5 inches, or 6 inches, depending on the
3 piece of equipment. I think we used 5.

4 MS. POOLE: And exhaust gas temperature?

5 MR. STEIN: For the exhaust temperature
6 we -- I believe we used an average of the values
7 that were reported on this site, and there may
8 have actually been a second site that reported
9 some lower temperatures, and we took an average of
10 those values which would have -- which resulted in
11 actually a slightly lower stack temperature being
12 used, which would be conservative.

13 MS. POOLE: And exit velocity?

14 MR. STEIN: We took an average of all
15 the velocities reported.

16 MS. POOLE: And again, that protocol is
17 for drill rigs, not construction equipment?

18 MR. STEIN: That's correct, but I think,
19 you know, drill rigs use internal combustion
20 engines, and so we would expect the parameters to
21 be fairly similar.

22 MS. POOLE: I'm going to show you
23 another document from that website. That's
24 construction protocol from that website, correct?

25 MR. STEIN: The document is titled

1 construction site for housing development,
2 scenario 9, first draft.

3 MS. POOLE: Could you read the
4 highlighted portion on page 6 of that?

5 MR. STEIN: It says all equipment are
6 modeled as area sources.

7 MS. POOLE: Thank you. I have no
8 further questions.

9 HEARING OFFICER FAY: All right. Does
10 TANC have any questions?

11 MR. DeCUIR: No, we don't.

12 MR. GALATI: No further questions.

13 HEARING OFFICER FAY: All right, the
14 Commissioner has advised me he wants to take a
15 ten-minute break at this point. And we'll start
16 promptly at 10:35 with the applicant's testimony
17 on operating impacts.

18 (A brief recess ensued.)

19 HEARING OFFICER FAY: We're on the
20 record. Go ahead.

21 MR. GALATI: Yes, Mr. Fay, I'd like to
22 just point out we'd like to withdraw the exhibit
23 which was the prevention of the significant
24 deterioration application because we can't show
25 that that has been docketed today, so we'll

1 withdraw that exhibit.

2 HEARING OFFICER FAY: Let the record
3 show that exhibit 52, PSD permit application, has
4 been withdrawn.

5 MR. GALATI: Thank you.

6 HEARING OFFICER FAY: And will not be
7 shown as an exhibit. All right. Ms. Holmes.

8 MS. HOLMES: Thank you. I think it
9 would make sense, perhaps, to just have Mr. Loyer
10 testify. Actually, I don't know how you want to
11 handle this. Do you want to have him testify on
12 construction emissions and have Mr. Esters follow
13 at the end of all of the other air quality issues?

14 HEARING OFFICER FAY: Characterize Mr.
15 Hesters' testimony. Is it just limited to
16 transmission-related air quality impacts?

17 MS. HOLMES: Yes.

18 HEARING OFFICER FAY: Let's do that,
19 let's hold off on Mr. Hesters until the end.

20 MS. HOLMES: Then we'll just call Mr.
21 Loyer.

22 HEARING OFFICER FAY: Can we make space
23 for Mr. Loyer? Mr. Loyer, let's put you next to
24 Ms. Holmes.

25 MS. HOLMES: And, Mr. Fay, do you want

1 the entire FSA identified as an exhibit, or do you
2 want each individual section identified as an
3 exhibit?

4 HEARING OFFICER FAY: I think we can
5 just stick with the exhibit reference for the FSA.
6 Indicate that --

7 MS. HOLMES: I would point out --

8 HEARING OFFICER FAY: -- since it's all
9 one document --

10 MS. HOLMES: I would point out that
11 although it is all one document, each section has
12 separate -- the pagination begins again. So,
13 there is going to be lots of, if it's exhibit 52,
14 52 page 3's.

15 HEARING OFFICER FAY: Each section
16 begins again?

17 MS. HOLMES: Yes. That's different from
18 our previous FSA's, but we had computer problems
19 at the very end and couldn't do it any
20 differently.

21 HEARING OFFICER FAY: In that case,
22 let's make each testimony an exhibit, separate
23 exhibit.

24 MS. HOLMES: Thank you.

25 HEARING OFFICER FAY: Thank you for

1 that. Please swear the witness.

2 Whereupon,

3 JOSEPH LOYER

4 was called as a witness herein, and after first
5 having been duly sworn, was examined and testified
6 as follows:

7 MS. HOLMES: Is the air quality portion
8 now identified as --

9 HEARING OFFICER FAY: Would you please
10 identify it, give it an exhibit number.

11 MS. HOLMES: It's entitled, Air Quality,
12 Joseph M. Loyer, and then below it says, and Mark
13 Hesters for transmission issues. We can leave
14 that as part of the exhibit 53, or identify it
15 separately.

16 HEARING OFFICER FAY: That will be
17 exhibit 54.

18 MS. HOLMES: There's also a series of
19 witness qualifications and declarations at the
20 end. I don't know if you want to have all the
21 nontestimony portions of the FSA given a number?

22 HEARING OFFICER FAY: I don't think so.

23 MS. HOLMES: Okay.

24 //

25 //

1 DIRECT EXAMINATION

2 BY MS. HOLMES:

3 Q Mr. Loyer, do you have in front of you a
4 copy of what's been identified as exhibit 54?

5 A Yes, I do.

6 Q And was that air quality testimony
7 prepared by you or under your direction?

8 A Yes, it was.

9 Q And was a statement of your
10 qualifications included in the FSA part 3?

11 A Yes, it was.

12 Q In addition, we have a provision to air
13 quality testimony dated January 5th.

14 MS. HOLMES: It should have an exhibit
15 number.

16 HEARING OFFICER FAY: Exhibit 55.

17 MS. HOLMES: Thank you.

18 BY MS. HOLMES:

19 Q And, Mr. Loyer, did you also prepare
20 exhibit 55?

21 A Yes, I did.

22 Q And given that 55 is a supplement to 54,
23 taking those two documents together, do you have
24 any corrections to make to your testimony?

25 A No, I don't.

1 Q And are the facts contained in your
2 testimony true and correct to the best of your
3 knowledge?

4 A Yes, they are.

5 Q And do the conclusions in your testimony
6 represent your best professional judgment?

7 A Yes, they do.

8 Q Would you like to summarize your
9 testimony?

10 A The project in question, the Sunrise
11 Cogeneration and Power Project, is a 320-megawatt
12 cogeneration power plant that will produce steam
13 to be used in the adjacent oil fields and
14 electricity to be sold on the deregulated market.

15 They will use clean burning natural gas,
16 dry/low NOx combustors, SCR, selective catalytic
17 reduction, and possibly an oxidation catalyst.

18 The project construction will include
19 the construction of the power plant, itself; the
20 230 kV substation; a 22-mile long 230 kV
21 transmission line; a 60-foot long, 12-inch
22 diameter natural gas pipeline; three 600-foot
23 lines for steam, boiler feedwater, and wastewater;
24 and three 30-foot long fresh water lines.

25 The project is expected to be completed

1 within -- construction is expected to be completed
2 within 15 months.

3 Table 4 of my testimony identifies the
4 maximum daily construction emissions expected from
5 the project. Staff does not expect there to be
6 any emission impacts from the natural gas
7 pipeline, the steam, boiler water or wastewater
8 lines or fresh water lines due to their short
9 line.

10 The transmission line and the project
11 site and substation should be the only areas where
12 we will have any emissions from construction.

13 Table 9 of my testimony identifies the
14 maximum construction impacts expected from the
15 project. In summary the only impacts we expect
16 are from PM10 from the project construction.

17 Staff believes that oxidizing catalysts
18 should be installed on construction equipment and
19 would reduce the PM10 emissions from vehicular
20 emissions by 40 percent. We believe that these
21 devices are feasible; they are available; and they
22 mitigate the project construction impacts.

23 It is staff's further opinion that the
24 remaining PM10 emissions will not significantly
25 impact the public because they are short term in

1 nature.

2 The well construction. The project will
3 be supplying steam to the nearby Texaco oil
4 fields. The assumptions made --

5 MS. POOLE: Isn't this supposed to be
6 addressed in the indirect section? I thought we
7 -- are we --

8 MR. LOYER: Are we doing --

9 MS. HOLMES: Oh, I'm sorry, I thought we
10 were doing all these -- together, I apologize.
11 This is just direct construction.

12 HEARING OFFICER FAY: No, -- yes,
13 project construction.

14 MS. HOLMES: All right, I have a couple
15 of additional questions.

16 BY MS. HOLMES:

17 Q In the applicant's testimony that was
18 filed after you filed your testimony they
19 discussed the potential NO2 impacts from
20 construction and they referenced something that's
21 called the non-road emission model. Do you
22 recollect that testimony?

23 A Yes, I do.

24 Q Do you believe it's appropriate to use
25 emission factors from the non-road emission model?

1 A Yes, I do. They are appropriate
2 emission factors to be used.

3 Q And in addition, have you reviewed the
4 testimony of CURE?

5 A Yes, I have.

6 Q And can you tell me whether or not staff
7 accounts in evaluating NO2 impacts that portion of
8 NO2 that may result from ozone scavenging?

9 A We do not account for that portion that
10 results from ozone scavenging.

11 Q Why not?

12 A We believe ozone scavenging is a near
13 field effect that cannot be easily determined. It
14 is dependent on the ozone concentrations at the
15 time of release of NO2, and therefore is very
16 speculative to trying to determine.

17 Q And lastly, with respect to the
18 discussions we've had today about soot filters and
19 oxidizing catalysts, why is staff continuing to
20 recommend oxidizing catalysts in light of
21 Sunrise's statement that they will provide ERCs
22 prior to construction?

23 A Staff is of the opinion that emission
24 reduction credits do not mitigate construction
25 impacts in any way. Emission reduction credits

1 were never designed to address short-term, short-
2 duration emissions. Therefore we don't believe
3 that the submittal that is required 30 days prior
4 to the beginning of construction is reasonable
5 mitigation for construction emission effects.

6 MS. HOLMES: Thank you. Mr. Loyer is
7 available for cross-examination.

8 HEARING OFFICER FAY: Mr. Galati.
9 Before we do that, any objection to receiving
10 exhibits 54 and 55 into evidence?

11 I hear none. Those are entered at this
12 time.

13 CROSS-EXAMINATION

14 BY MR. GALATI:

15 Q Mr. Loyer, do you agree that soot
16 filters are not applicable or not appropriate for
17 this project?

18 A Staff agrees soot filters are not
19 appropriate for this project.

20 Q Okay. Do you also agree that there's no
21 scientific data on the effectiveness of oxidation
22 catalysts?

23 A To my knowledge the oxidation catalyst,
24 itself, has not been proven through independent
25 laboratory testing to be as effective as the

1 manufacturer or vendors are claiming.

2 Q Are you aware of whether or not the
3 oxidation catalyst would cause back pressure on
4 equipment?

5 A According to the vendor discussions that
6 I've had there should be no significant back
7 pressure from the oxidation catalyst, itself.

8 Q Have you ever heard of problems with
9 unscheduled maintenance impacts or frequent
10 shutdown of a piece of equipment because they have
11 oxidation catalysts occurs?

12 A No, sir.

13 Q Would you agree that oxidation catalyst
14 is not required by any district regulation?

15 A For off-road construction vehicles?

16 Q Yes, for the San Joaquin District.

17 A For the San Joaquin District it is not
18 required.

19 Q And it's not required by the Air
20 Resources Board, either, is it?

21 A No, sir.

22 Q Or the USEPA?

23 A No, sir.

24 Q Would you agree that soot filters are
25 not a common installation for construction

1 equipment?

2 A I would agree.

3 Q Would you agree that oxidation catalyst
4 does not reduce NO2 emissions?

5 A I would agree.

6 Q Are you familiar with the La Paloma
7 project?

8 A Yes, sir.

9 Q Were oxidation catalysts required for
10 the La Paloma project?

11 A No, sir.

12 Q Considering the mitigation in AQC-1,
13 what additional mitigation for PM10 do you believe
14 the oxidation catalyst will provide above and
15 beyond AQC-1?

16 A AQC-1 addresses fugitive dust emissions
17 and therefore will have no impact whatsoever on
18 PM10 emissions from vehicles, themselves.

19 The oxidation filters have the potential
20 to reduce PM10 emissions from the construction
21 equipment, themselves, by, according to vendor, 40
22 percent, 40 to 45 percent.

23 Q With respect to your statement on direct
24 regarding use of the ERC credits, I believe, and
25 correct me if I mischaracterize this, I believe

1 that you said ERC credits don't mitigate
2 construction impacts?

3 A Yes, sir.

4 Q And your reasoning for that was because
5 construction impacts are temporary?

6 A Temporary, fairly high in nature, yes.

7 Q So, it's not a common practice that ERCs
8 were used to mitigate construction impacts,
9 correct?

10 A That is correct.

11 Q Isn't that due to the fact that most of
12 the time because construction impacts are
13 temporary in nature, they're found not to be
14 significant?

15 A That may be, I don't know the answer to
16 that.

17 Q Okay, I want to pose a hypothetical to
18 you. If a new facility were sited in the San
19 Joaquin Valley that exceeded the offset threshold,
20 would offsets be needed?

21 A If it exceeded the new source review
22 offset thresholds?

23 Q Correct.

24 A Then, yes, theoretically offsets would
25 be needed.

1 Q And that would be true even if the new
2 facility were only a temporary facility that
3 operated for 15 months?

4 A Possibly.

5 Q Would you agree that ERCs supplied for
6 such a source would mitigate those impacts?

7 A I would be uncomfortable in making that
8 determination without saying specifics about the
9 project being proposed. Obviously not a power
10 plant, but --

11 Q Well, if the offsets are required, and
12 as I understand the district rules, they require
13 them to be surrendered for each year, correct?
14 They're surrendered, they're calculated on a
15 yearly annual basis, correct?

16 A The offset requirements are based on an
17 annual calculation as broken down into a quarterly
18 requirement.

19 Q What I'm having difficulty understanding
20 is if those ERCs are retired to mitigate
21 operational impacts for, let's say, 30 years, why
22 would they not also be sufficient to mitigate the
23 impacts for 15 months?

24 A Typically for an operation that extends
25 30 years we have a good estimate of what exactly

1 the emissions will be, and that they will be
2 ultimately limited based on measurements, direct
3 measurements that we can make of the source.

4 For construction impacts we can't make
5 those direct measurements, we can only make
6 estimates of what those emissions and impacts will
7 be. Therefore, ERC credits used to mitigate the
8 construction impacts may or may not mitigate the
9 project fully.

10 It has been the Commission's position
11 and policy, and we have yet to be challenged on
12 it, that the ERCs surrendered do not mitigate the
13 project.

14 It is nice if they're surrendered prior
15 to construction, and we usually do take account
16 for it in the staff testimony, but that is all.

17 Q With respect to PM10 emissions, you've
18 reviewed the applicant's testimony?

19 A Yes.

20 Q And do you have a copy of that with you?
21 I'd like to turn your attention to page 7 of Mr.
22 Stein's testimony. Specifically drawing your
23 attention to page 7, to table ERC-6.

24 A Yes, sir.

25 Q It's entitled, comparison of maximum

1 construction emissions with Sunrise ERCs. Again,
2 directing your attention to the PM10 column, the
3 first entry is maximum construction emissions,
4 pounds per year, 17,809.

5 A Yes, sir.

6 Q And what were the total ERCs provided
7 according to that table for PM10?

8 A This table records the total ERCs
9 provided in pounds per year as 235,924.

10 Q And what would be the net air quality
11 improvement according to that table?

12 A This table records the net air quality
13 improvement for PM10 as 218,115.

14 Q So even if the construction emissions
15 actually were off somehow by a factor of ten,
16 there would still be sufficient ERCs provided if
17 Sunrise were to surrender those?

18 A If you consider the ERCs to be
19 mitigating of the project construction emissions
20 then I would agree.

21 MR. GALATI: I have no further
22 questions. Thank you, Mr. Loyer.

23 HEARING OFFICER FAY: Ms. Poole.

24 MS. POOLE: Thank you.

25 //

1 CROSS-EXAMINATION

2 BY MS. POOLE:

3 Q Good morning.

4 A 'Morning.

5 Q Have you reviewed CURE's comments on the
6 PSA which recommended the use of soot filters to
7 mitigate the emissions from construction
8 equipment?

9 A Yes, I have.

10 Q Did you recommend the use of these
11 filters in your testimony filed on December 17th,
12 exhibit 54, I believe?

13 A Yes, I did.

14 Q Did you subsequently revoke this
15 recommendation in your supplemental testimony
16 filed on January 5th?

17 A I revised my testimony, yes, ma'am.

18 Q And you changed -- eliminated the
19 recommendation for soot filters?

20 A Yes, I did.

21 Q This testimony was filed after the other
22 parties had filed their air quality testimony in
23 this case, correct?

24 A I would have to defer to the project
25 manager for that.

1 Q Does the Presiding Member's Proposed
2 Decision for the High Desert Power Project
3 recommend the use of soot filters?

4 MS. HOLMES: If he's aware of what's in
5 the decision.

6 MR. LOYER: I would have to say that I'm
7 not aware if they do or do not.

8 BY MS. POOLE:

9 Q I have an excerpt of that decision here
10 which is dated December 1999. Would you please
11 take a look at AQ-30.

12 A AQ-30 states, soot filters may be used
13 on all large off-road construction equipment with
14 an engine rating of at least 100 brake horsepower.

15 Q I'm sorry, doesn't this say that soot
16 filters shall be used? Could you read that again,
17 please?

18 A Yeah, it says soot filters shall be
19 used.

20 Q Thank you.

21 A I was reading into a little bit more
22 than there was --

23 Q Was this project's offset requirement
24 calculated on the basis of the project's
25 operational emissions?

1 A High Desert, or --

2 Q No, I'm sorry, the Sunrise project.

3 A Repeat, please?

4 Q Was the Sunrise project's offset
5 requirement calculated on the basis of the
6 project's operational emissions?

7 A Yes, including start-up.

8 Q Are you familiar with the ozone limiting
9 method?

10 A Yes.

11 Q Is the ozone limiting method used to
12 adjust NOx estimated by dispersion models?

13 A Typically it's employed in modeling
14 analysis to reduce the NOx emission impacts to
15 include only the NO2 portion of the NOx emissions.

16 Q Using this method ambient NO2 consists
17 of two parts, correct?

18 A The NOx emission from the power plant
19 consists of two parts, yes.

20 Q One part is the thermal NO2 which is
21 produced in the stack, right?

22 A Correct.

23 Q And the second part is produced downwind
24 from the reaction of NO in the plume with
25 atmospheric ozone, right?

1 A The NOx consists of NO and NO2 coming
2 from the stack.

3 Q Using the ozone limiting method you also
4 calculate total NO2 based in part on NO2 that's
5 produced downwind from the reaction of NO with
6 atmospheric ozone, correct?

7 A Not typically, no. That's usually
8 referred to as the ozone scavenging effect. The
9 ozone limiting method is usually referring to
10 limiting the NOx emission from a power plant
11 source, or any source emitting NOx to only include
12 the NO of the NO2 portion.

13 Q If there's ozone in the atmosphere and
14 NO in the plume, some NO2 will form, correct?

15 A Correct, it is a very fast reaction.

16 Q Is there NO present in emissions from
17 construction equipment?

18 A Yes.

19 Q Did the Energy Commission approve
20 Sunrise's modeling protocol?

21 A Yes, we did.

22 Q Does that protocol recommend the use of
23 the ozone limiting method?

24 A Where applicable.

25 MS. POOLE: Thank you, that's all my

1 questions.

2 HEARING OFFICER FAY: Any questions from
3 TANC?

4 MR. DeCUIR: No questions.

5 HEARING OFFICER FAY: Mr. Loyer, just a
6 few questions.

7 EXAMINATION

8 BY HEARING OFFICER FAY:

9 Q I think you've addressed this, but
10 perhaps I didn't quite understand it. I gathered
11 from your testimony that you find that there are
12 no significant impacts after the ERCs are applied,
13 is that correct?

14 A I'm sorry, the ERCs -- no significant
15 impacts after the ERCs are applied?

16 Q Yes.

17 A Yeah, for the project emissions, yes,
18 that's right.

19 Q Okay, so you're separating project
20 emissions, and you find that there are significant
21 impacts as a result of construction emissions?

22 A I find that there are significant --
23 there are potentially significant PM10 impacts in
24 the analysis, but due to the area which they will
25 impact and the short-term nature of these

1 emissions, I don't believe that they will be
2 significant.

3 Q And so if they're not significant what's
4 your basis for requiring or proposing the
5 requirement for the oxidation catalyst?

6 A We're required to use all feasible
7 available mitigation measures prior to finding an
8 impact not significant.

9 Q And since soot filters were originally
10 part of what you considered feasible available
11 mitigation measures, why did they drop out?

12 A The technical requirements for soot
13 filters as described to me by the vendors, and
14 then later in discussion with equipment
15 manufacturers, render them unreasonable and
16 burdensome, overly burdensome for the applicant.
17 They require 700 degree Fahrenheit exhaust
18 temperature on a fairly consistent basis.

19 The construction equipment, itself,
20 doesn't tend to run for long periods of time at
21 that temperature, therefore soot filters would end
22 up causing a significant amount of back pressure
23 and causing a significant amount of down time.

24 There were ways of dealing with the
25 problem but they were extremely burdensome in my

1 view.

2 Q Okay. But you believe it's less
3 burdensome in terms of the oxidation catalyst?

4 A The oxidation catalysts don't require
5 700 degrees to be effective. They are, I believe
6 the temperature quoted to me was 200 degrees
7 Fahrenheit which is easily reachable even at
8 idling speeds.

9 Q So for the diesel powered, diesel fueled
10 machinery that you anticipate being used, you
11 believe the oxidation catalyst is feasible?

12 A I believe it is, sir.

13 Q Is there any alternative to an oxidation
14 catalyst that you're aware of that may be
15 available in terms of accomplishing the same goal?

16 A Not for diesel-powered machines.

17 Q And has the staff ever explored an
18 offset strategy for construction equipment?

19 A No, sir. Our strategy has been to
20 reduce as much as possible the emissions from the
21 project, itself.

22 Q All right. Is the model and the results
23 of the model shown on table 9, page 18 of your
24 testimony the basis for your requirement in AQC-2?

25 A Yes, sir.

1 HEARING OFFICER FAY: That's all I have,
2 Ms. Holmes.

3 MS. HOLMES: If I could have a moment.
4 (Pause.)

5 MS. HOLMES: Thank you, Hearing Officer
6 Fay, I have no further questions.

7 HEARING OFFICER FAY: All right, thank
8 you, Mr. Loyer, appreciate your testimony. You're
9 excused -- for now.

10 Ms. Poole.

11 MS. POOLE: Yes, I'd like to call a
12 panel of witnesses on this topic, Dr. Fox, who has
13 previously been sworn, and Mr. Andy Garcia and
14 Stephen Frasch from Engelhard.

15 MR. GALATI: And, again, at this time
16 I'd renew my objections that the soot filter
17 vendors be called and provide affirmative
18 testimony without us being able to see it.

19 MS. POOLE: As Mr. Loyer just explained,
20 the soot filter testimony changed drastically just
21 three working days ago. This is our first
22 opportunity to respond to it. We must have some
23 opportunity to rebut evidence provided by other
24 parties. It's in the Commission's rules, due
25 process demands it.

1 These witnesses will be available for
2 cross by the other parties.

3 HEARING OFFICER FAY: Well, Mr. Galati,
4 I think that CURE is clearly at a disadvantage
5 here. And what I think we can do is allow you to
6 preserve the right to file rebuttal testimony as
7 needed under declaration, if you need. Or to ask
8 that the subject be brought up at any subsequent
9 hearing.

10 I acknowledge you're at a disadvantage
11 under the circumstances, but I think we'll move
12 ahead, and allow you the right to file rebuttal
13 testimony under declaration.

14 MR. GALATI: And if I could generate
15 that rebuttal testimony while sitting at the
16 table, would I be able to put somebody on
17 today --

18 HEARING OFFICER FAY: Certainly.

19 MR. GALATI: -- to rebut that testimony
20 if they can?

21 HEARING OFFICER FAY: Then that would
22 give CURE the same advance notice.

23 MR. GALATI: Thank you.

24 MS. POOLE: Thank you, can we have the
25 witnesses up here?

1 HEARING OFFICER FAY: Please swear the
2 witnesses.

3 Whereupon,

4 ANDREW GARCIA and STEPHEN A. FRASCH
5 were called as witnesses herein, and after first
6 having been duly sworn, were examined and
7 testified as follows:

8 Whereupon,

9 PHYLLIS FOX
10 was recalled as a witness herein, and having been
11 previously duly sworn, was examined and testified
12 further as follows:

13 DIRECT EXAMINATION

14 BY MS. POOLE:

15 Q Dr. Fox, would you please state your
16 name and qualifications for the record?

17 A Phyllis Fox. As you've heard before I
18 have a PhD in environmental engineering from UC
19 Berkeley; also a masters degree and a BS in
20 physics; and 28-plus years of experience working
21 on environmental problems, including the ones that
22 we're discussing here, air quality modeling,
23 emission inventories and control technologies.

24 Q Mr. Frasch, would you please state your
25 name and qualifications for the record, as well?

1 A Yes, my name is Stephen Frasch. I'm
2 employed by the Cinco Group for the last two
3 years. We are the Engelhard distributors in the
4 western seven states, for over ten years Cinco
5 Group has.

6 Before that I was employed in the oil
7 and gas industry, my whole career, ten years plus.
8 I did everything from compliance, production, gas
9 processing and oil exploration.

10 Part of my compliance measures were the
11 meeting of the requirements for using catalytic
12 converters.

13 Q Thank you. Mr. Garcia?

14 A Andy Garcia. Thirty years with the sale
15 and application of industrial equipment including
16 ten years involved with environmental application
17 with Engelhard.

18 MS. POOLE: Dr. Fox, was the air quality
19 testimony submitted on behalf of CURE prepared by
20 you or under your direction?

21 DR. FOX: Yes, it was.

22 MS. POOLE: Do you have any changes to
23 make to the construction portion of that
24 testimony?

25 DR. FOX: I do as soon as I find it.

1 Okay, I do have a few changes. My first one is on
2 page 2 of my testimony. And on page 2 in the
3 first complete paragraph I stated as follows: "I
4 disagree with staff's responses and conclusions in
5 the FSA and support all of my original comments"
6 and the balance of the material is going to be
7 struck,"except with respect to impacts from
8 construction equipment exhaust emissions." That
9 phrase needs to be struck because of the
10 elimination of the soot filters.

11 Continuing, "I originally concluded that
12 construction equipment exhaust would cause or
13 contribute to exceedence of air quality standards,
14 however since then staff has recommended imposing
15 post-combustion controls on construction equipment
16 exhaust." That sentence also should be struck
17 because soot filters have now been eliminated.

18 And then the next sentence says, "While
19 these controls reduce PM10 and VOC emissions below
20 levels of concern," strike that, as well.

21 And on page 5, the first complete
22 paragraph, the second line, "may not be violated",
23 not should be struck. The sentence should read,
24 "Third, even if the impacts were short-term, state
25 air quality standards may be violated."

1 Page 14, which is table 1, in the left-
2 hand column there is an indication about a third
3 of the way down of BIOG. That stands for biogenic
4 gases, like isoprene. And under N-ethane in the
5 far right-hand two columns, there's a number 15.5
6 and 7.4. Those numbers should be under ethane at
7 the bottom of the table.

8 MR. GALATI: I'm sorry, could you repeat
9 that last correction again, please?

10 DR. FOX: Sure. Under alkenes and
11 ethane in the far right-hand two columns under PPB
12 there's 15.5 and 7.4. That should actually be
13 ethane under alkenes.

14 And then finally on page 17 in the first
15 complete paragraph there are three corrections I
16 want to make. The first one is in the third line
17 that starts with NOx limit of 30 ppmve, the e on
18 the end of ppmve should be struck.

19 And in that same paragraph three lines
20 up from the bottom, the line that starts with
21 "fired on gaseous fuels", gaseous fuels should be
22 crude oil.

23 And then immediately to the right of
24 gaseous fuels in the parentheses there's an id,
25 page 5. That should be attachment 10, page 5.

1 MS. POOLE: Would you please summarize
2 your testimony regarding construction emission
3 impacts of this project?

4 DR. FOX: Sure. I originally had no
5 written construction equipment testimony because I
6 was in support of staff's recommendation for
7 oxidizing soot filters.

8 But given that the soot filter portion
9 has been eliminated, I would like to now state
10 that I support my original comments in the PSA on
11 construction emissions.

12 And in the PSA what we did was remodel
13 construction impacts using different techniques
14 than the applicant did, and we found that there
15 would be significant NO2 and PM10 impacts.

16 We found that the one-hour NO2 standard
17 would be exceeded, and we also found that the PM10
18 exceedence would be quite a bit higher than what
19 the applicant found.

20 And rather than waste time here today
21 going into that in detail, I'll just refer you to
22 my PSA comments which I now support.

23 What I would like to do with the balance
24 of my time is talk about soot filters and
25 oxidizing catalysts and also comment on the

1 applicant's recently filed testimony.

2 With respect to soot filters, -- there's
3 a lot of paper here -- well, I'll talk while
4 counsel looks for the testimony.

5 With respect to soot filters, I have had
6 a lot of experience working with them. What they
7 are is a device that you add onto the exhaust that
8 removes primarily PM10 or PM2.5. And they're
9 important because CARB, in August of 1998,
10 declared diesel exhaust particulates as a
11 carcinogen and as a toxicant. And soot filters
12 remove well in excess of 90 percent of PM10 diesel
13 exhaust.

14 In addition, they also, in combination
15 with oxidizing filters and what we were proposing
16 wa an oxidizing soot filter which has two
17 catalysts combined, they also remove volatile
18 organic compounds. And specifically they remove
19 aldehydes which are present in very high
20 concentrations in the exhaust of diesel-fired
21 equipment.

22 And aldehydes, based on our public
23 health analyses, which we'll talk about later on,
24 result in significant public health impacts as a
25 result of constructing the project.

1 So there is actually three major reasons
2 for requiring oxidizing soot filters. The first
3 would be to remove gross PM10. The second would
4 be to remove carcinogenic diesel exhaust
5 particulates. The third would be to remove gross
6 VOCs or ozone precursors. And the fourth would be
7 to remove toxic compounds like acrolein and other
8 aldehydes such as formaldehyde.

9 As to whether or not they're applicable
10 on construction equipment, they are, indeed. And
11 I have worked on several projects where they have
12 been included on construction equipment.

13 I think the first one was brought up a
14 few minutes ago in the cross of Joe Loyer. Soot
15 filters were required on all construction
16 equipment greater than 100 horsepower for the High
17 Desert Power Project, based on my work.

18 In addition, I have been working on the
19 Avila Remediation Project in San Luis Obispo
20 County. And one of the mitigation measures
21 required by the local air district was the
22 installation of both oxidizing catalysts and soot
23 filters on construction equipment used on that
24 project. And that project has been underway for
25 the past 15 months. And there have been no

1 operating problems at all.

2 Other cases where they have been used
3 that I'm aware of is one of the largest
4 construction projects in the world that's referred
5 to as the Big Dig. It's basically the rebuilding
6 of the freeway system in Boston. And oxidizing
7 soot filters are being used on construction
8 equipment in that project.

9 In addition, other projects that I've
10 worked on, for example, is the currently proposed
11 but not yet built project Ball Park in San Diego.
12 One of the mitigation measures included in that
13 EIR was the use of oxidizing soot filters on all
14 construction equipment larger than 100 horsepower.

15 And there are many other examples that,
16 you know, I haven't been personally involved in.
17 Another project that I was involved in is the Port
18 of Oakland. The Port of Oakland has proposed to
19 roughly double the size of the port. It will be a
20 ten-year project, and part of the CEQA mitigation
21 in that project is the use of oxidizing soot
22 filters on off-road equipment.

23 So it's simply not true that soot
24 filters are not applicable on construction
25 equipment. They're widely used on construction

1 equipment all over the country. There are no
2 operating problems and there's a wealth of data
3 that demonstrates that they actually work.

4 In fact, I believe that CARB has
5 actually certified the reductions of this
6 equipment for use in California.

7 There's also been a number of research
8 studies, one in particular conducted by NESCAM
9 which is the New England equivalent of CAPCOA in
10 California. It's an association of local air
11 pollution control officials in the New England
12 states, New Jersey, New York, et cetera.

13 They conducted an exhaustive
14 investigation of oxidizing soot filters on a wide
15 range of construction equipment; published the
16 report in the Referee Journal; and concluded that
17 they work. There were no problems at all.

18 And I'd like to move on to --

19 PRESIDING MEMBER MOORE: Dr. Fox, that
20 Referee Journal, can you give us the reference to
21 that? And did they, in that Journal article, talk
22 about costs?

23 DR. FOX: Yes. There have been a couple
24 of -- I'm not sure about that paper. That's an
25 SAE paper and I have it with me. And during the

1 lunch break I'll find it and put it into the
2 record.

3 But there have been other studies that
4 have determined the cost effectiveness of using
5 this equipment on construction equipment. One
6 site study was done by the Monterey Bay Air
7 Pollution Control District, and another one was
8 done by a private organization. And in both cases
9 the numbers were modest. They were on the order
10 of \$2000 to \$5000 per ton, which is cost effective
11 almost everywhere in the country.

12 Next I would like to go through Texaco's
13 filed written testimony and comments --

14 MR. GALATI: Again, for the record, the
15 applicant is Sunrise Cogeneration and Power
16 Company.

17 HEARING OFFICER FAY: Thank you, that's
18 noted.

19 DR. FOX: I'd like to start on page 7 of
20 Texaco's -- Sunrise's air quality not including
21 meteorology testimony.

22 And let me tell you where I'm going
23 before I get there. This is going to take awhile
24 to get there. And why I'm doing what I'm doing.

25 For the first time in this written

1 testimony Texaco has declared that surrendering
2 their ERCs before construction mitigates their
3 construction emissions. I disagree with that
4 strongly.

5 I agree completely with staff's comments
6 on that matter. And the primary reason is that
7 surrendering the ERCs does not mitigate violations
8 of ambient air quality standards, which are events
9 that occur today. Whereas the ERCs are things
10 that happen historically. So you can't use an ERC
11 to mitigate for a violation of air quality
12 standards.

13 But, secondarily where I'm going with
14 this testimony is to demonstrate that Texaco's --
15 Sunrise's PM10 emission are grossly under-
16 estimated. And when you correct all of the errors
17 in their calculations what you will find is even
18 if you accepted the premise that the ERCs
19 mitigated construction impacts, that they would
20 not be enough to mitigate the fugitive dust PM10
21 emissions from this project. So bear with me
22 while I go through this.

23 PRESIDING MEMBER MOORE: Dr. Fox, before
24 you go on, why don't you describe in your own
25 words, since you just kind of opened this can a

1 little bit, the role in your mind of the ERCs. If
2 they can't be used in this capacity, how can they
3 be used in your mind? What's the limit of an ERC?

4 DR. FOX: An ERC is normally used in
5 conjunction with a new source review analysis, and
6 they are used in conjunction with BACT. A project
7 will have BACT to eliminate the emissions to the
8 extent feasible, and then any remaining emissions
9 will be offset using ERCs.

10 The problem with that, though, is if you
11 were in a situation where you have a violation of
12 an ambient air quality standard, those ERCs do not
13 mitigate for that violation, because the ERCs are
14 surrendered historically.

15 HEARING OFFICER FAY: So in your mind
16 they're only applicable at the margin? That is to
17 say for new facilities. Nothing for the existing
18 situation is taken care of, in your mind, by an
19 ERC?

20 DR. FOX: Correct.

21 Okay, on page 7 under direct impacts,
22 the second paragraph that starts with the word
23 construction, Sunrise states, "Fugitive dust
24 emissions were estimated based on the estimated
25 number of acres disturbed each month, the USEPA

1 emission factor of 0.11 tons of PM10 per acre per
2 month, and a control effectiveness of 50 percent
3 from implementation of fugitive dust control
4 measures."

5 First, I'd like to clarify the record.
6 This .11 tons of PM10 is not an EPA emission
7 factor. And there is no EPA guidance on controls
8 that result in a 50 percent reduction.

9 This .11 tons of PM10 comes from a
10 report done by the Midwest Research Institute for
11 the South Coast Air Quality Management District.
12 And the author is Molesky. And Sunrise correctly
13 cites it in their AFC on page 8.1-32.

14 There are a number of things to focus on
15 with respect to this .11 tons of PM10 which is
16 what they used to calculate their fugitive dust
17 emissions. If you look at the MRI report that
18 this number was taken from what you will find is
19 there's two numbers in that report. .11 tons of
20 PM10 for projects that have very little earth-
21 moving activities. And a higher number, .43 tons
22 of PM10, in projects where there's a large amount
23 of earth-moving anticipated, such as this one.

24 And the recommendation in that report is
25 when a large amount of earth-moving activities are

1 considered, that one should use the larger number.
2 So, right there you have a factor of 3
3 underestimation from selecting the wrong emission
4 factor.

5 The second thing to note about this is
6 this .11 tons of PM10 which was used to estimate
7 fugitive dust already assumes that controls are in
8 it.

9 What Sunrise did was they took a already
10 low number and they cut it in half to account for
11 dust control. But, in fact, that number was
12 calculated from seven active construction sites in
13 which dust control measures were already
14 implemented.

15 And the California Air Resources Board,
16 which does rely on this same report, talks at
17 length about the fact that this number is
18 controlled already.

19 And I have the CARB guidance here with
20 me which I cite in my written testimony and
21 excerpt parts of. And I would like to read to you
22 from it. This is the CARB guidance manual,
23 emission inventory procedural manual, methods for
24 assessing air area source emissions.

25 MR. GALATI: What exhibit is that? Is

1 that an exhibit to your testimony? What number?

2 DR. FOX: I'm not sure, I'd have to stop
3 and look. All of what I'm reading is not in my
4 testimony, but there are excerpts from this report
5 in there.

6 I believe that's attachment 14. In the
7 CARB guidance manual there's a section called
8 building construction dust. And in there on page
9 7.7-2 it states the construction emission factor
10 is assumed to include the effects of typical
11 control measures such as routine watering. A dust
12 control effectiveness of 50 percent is assumed
13 from these measures which is based on the
14 estimated control effectiveness of water.

15 Therefore, if this emission factor is
16 used for construction activities where watering is
17 not used it should be doubled to more accurately
18 reflect the actual emissions.

19 However, our judgment is that the
20 activities observed and the emission estimates do
21 include the residual effects of controls. All of
22 the test sites observed were actual operations
23 that used watering controls as part of their
24 standard industry practice in California and Las
25 Vegas.

1 In other words, CARB, in their guidance
2 for using this .11 --

3 MR. GALATI: I'm sorry to interrupt, but
4 I can't follow where you are or what you're
5 reading from.

6 DR. FOX: I'm reading from the CARB
7 guidance --

8 MR. GALATI: In exhibit 14?

9 MS. POOLE: Attachment 14.

10 MR. GALATI: What part of that? I have
11 it here. What part?

12 DR. FOX: It's 7.7-2.

13 MR. GALATI: It's not in your written
14 filed exhibit? I think the last page is 4.1-4.

15 MS. POOLE: As Dr. Fox explained, we
16 attached excerpts from that report to try to limit
17 the size of our filing. And this is a section
18 that was not attached, but that report is attached
19 to our exhibit.

20 MR. GALATI: Do you at least have a copy
21 for us to use?

22 DR. FOX: Okay, so the first point is
23 .11, which the applicant reduced by 50 percent,
24 already assumes controls. And CARB guidance
25 states it is inappropriate to reduce it.

1 The second factor is the .11 was based
2 on actual measurements at a number of construction
3 sites in California and Nevada. And let me back
4 up a little bit.

5 The factor that causes dust emissions at
6 a construction site is the amount of silt content
7 in the soil. The silt content is the tiny 75
8 micron and smaller material. It's the fines, if
9 you will. The heavy material, the sand-like
10 material, isn't easily suspended and it generally
11 doesn't cause a dust problem.

12 So, dust emissions at a construction
13 site are directly related to the amount of silt
14 content in the soil. And in fact all the EPA
15 emission factors for estimating dust loadings from
16 scrapers and dozers and things like that have silt
17 content as one of the factors in the equation.

18 This .11 factor that the applicant
19 relied on was based on seven construction sites
20 with an average silt content of 8.2 percent.
21 Which is typical of a lot of the western United
22 States.

23 However, the silt content at the Sunrise
24 project site is substantially higher than that.
25 Sunrise docketed a geotechnical investigation

1 which included a number of borings, and those
2 borings included sieve analyses of the soil
3 samples, and the average of those sieve analyses
4 of the soil samples indicates that the silt
5 content at the project site is 61 percent.

6 And that's fairly typical for Kern
7 County. I looked at similar data submitted in the
8 Elk Hills case and it's very close.

9 So we're dealing here with a situation
10 where the silt content of the soils that would be
11 disturbed is nearly a factor of 10 higher than the
12 silt content that the .11 emission factor was
13 based on.

14 So, those three factors, the improper use of
15 a 50 percent reduction factor, the use of the
16 emission factor corresponding to very little
17 earth-moving activities, and the use of a
18 parameter based on a low silt content, those three
19 factors together, if you multiply them together
20 what you find is the applicant has under-estimated
21 its PM10 fugitive dust emissions by a factor of
22 59. Okay?

23 If you now apply that factor of 59 to
24 their own estimate of fugitive dust PM10
25 emissions, and compare it to the amount of PM10

1 offsets that they would offer, you will find that
2 they are shy by a very large amount.

3 And let me see if I can find that. In
4 Dave Stein's testimony on PM10 on page 7 it shows
5 that Texaco -- Sunrise would surrender 235,924
6 pounds of PM10 ERCs. And their estimate of PM10
7 is 17,8000. So if you multiply that by 59 you'll
8 find that they would need 1,050,200 pounds to
9 offset the actual PM10 emissions from this
10 project.

11 So even if you assumed that the use of
12 ERCs is valid for offsetting construction
13 emissions, which I refute, there still would not
14 be enough ERCs surrendered in this case to offset
15 the actual PM10 emissions from constructing this
16 project.

17 The other thing I would like to address
18 is the issue of whether or not the NO2 one-hour
19 standard would be exceeded by the construction
20 equipment. In our PSA comments we revised
21 Sunrise's modeling and found that there would be a
22 significant impact. And the revisions that we
23 made are as follows:

24 First, we used the alternate
25 meteorological data set, McKittrick, which you

1 heard some discussion of. But we're willing to
2 drop that and go with Fellows. It turns out that
3 there is no difference as far as the impact,
4 short-term impacts, as to whether or not you use
5 Fellows or McKittrick. The short-term impacts are
6 essentially identical.

7 And when we're talking about the NO2
8 standard, we're talking about the one-hour
9 California standard, so the net data set is
10 irrelevant.

11 The main difference between Sunrise's
12 modeling and our modeling is Sunrise modeled the
13 construction emissions as four point sources. In
14 order to understand this rather bizarre discussion
15 I need to back up, and we need to get in our mind
16 what a construction site looks like.

17 I'm sure you've all seen a construction
18 site, a large area that has a number of different
19 pieces of heavy duty equipment, dozers, pactors,
20 scrapers, for example, all moving earth around.
21 And there's a lot of activity and a lot of
22 disturbed dirt going on.

23 What Sunrise did was they modeled that
24 area as four stacks, four stacks with a diameter
25 of 12 inches and a height of 30 feet, and a very

1 high exit velocity.

2 The ambient concentration that you get
3 when you model something depends on how high up
4 it's released, and how hot it is when it's going
5 up, and how fast it's going.

6 If you release something from a tall
7 stack that's very hot that's moving very fast, it
8 is expelled from the stack and it mixes out very
9 well. Whereas, if you've got something with a low
10 stack with a small diameter that's relatively cool
11 and has a low velocity, it doesn't disperse. It
12 kind of hangs together and hovers close to the
13 ground surface. It doesn't disperse very well and
14 you have high concentrations.

15 What Sunrise did was they modeled the
16 construction emissions as four stacks. We
17 commented on that. We argued that it was more
18 appropriate to model them as a volume source.
19 That's how construction emissions are usually
20 modeled. They're usually modeled as a volume
21 source.

22 In fact, the Santa Barbara Air Pollution
23 Control District has specific guidance in their
24 permitting manual on how to do this, and that
25 guidance is widely used in California for modeling

1 construction emissions.

2 Based on our critique of their modeling,
3 they went and they remodeled. But did they
4 remodel it as a volume source? No. They
5 remodeled it still as four point sources. They
6 did do some things that were great. They lowered
7 the stack height from 30 feet to 10 feet, based on
8 the CARB website address that we crossed Dave
9 Stein on. And they also reduced the diameter of
10 the stack from 12 inches down to five, which is
11 great.

12 However, what they aren't telling you is
13 that they also doubled the exit gas velocity.
14 They argue in here that what they have done is
15 more conservative. Well, it's not really more
16 conservative, because at the same time that they
17 lowered the stack height and decreased the
18 diameter of the stack, they doubled the velocity
19 going out, which means that you're going to get
20 more dispersion than you should if you've got a
21 slow-moving gas.

22 So, to make a long story short, their
23 analysis grossly under-estimates the actual impact
24 of construction emissions from vehicle exhaust.
25 Interestingly enough, the CARB website that they

1 refer to on page 9 of their testimony has -- well,
2 the CARB website is an exercise that CARB is doing
3 to establish regulations to implement the diesel
4 exhaust toxic air contaminant determination.

5 And what they are doing is constructing
6 a number of scenarios that involve diesel
7 equipment and doing health risk assessments on
8 them. And they have prepared one on construction
9 equipment and one on drilling equipment.

10 And if you look at the one on
11 construction equipment which Sunrise did not use,
12 which I find very curious because that would have
13 been the proper one to use, the one on
14 construction equipment tells you to model
15 construction emissions as an area source. This is
16 important. We use the volume source. A volume
17 source will give you higher concentrations than an
18 area source will.

19 So CARB's recommendation is to model
20 these emissions as an area source, which would
21 give even higher numbers than the ones that we
22 used.

23 Anyway, in response to all of the
24 controversy over the meteorological data sets,
25 rather than arguing about it we simply re-did our

1 construction analysis holding everything constant
2 as described in our PSA comments, except we used
3 the Fellows data set which the applicant used.
4 And the impact that we got using the McKittrick
5 data set which our PSA comments reflect, are 500
6 mcg/cubic meter for a one-hour NOx impact. The
7 ambient air quality standard is 470, so that
8 slightly exceeds the one-hour standard.

9 If you re-model it, doing everything
10 exactly the same except just using the Fellows
11 data set which the applicant alleges is the
12 correct one, you get 528, which is higher than the
13 number that we reported in our PSA comments.

14 MR. GALATI: An objection. Was that in
15 your testimony, that remodeling?

16 DR. FOX: No, it wasn't.

17 MR. GALATI: Then I'd object to it.

18 MS. POOLE: It's rebuttal testimony to
19 the testimony which Sunrise filed on January 3rd.

20 HEARING OFFICER FAY: This is part of
21 the limitation we have. If we're filing testimony
22 simultaneously, with the exception of the staff
23 FSA, then we're faced with this.

24 MR. GALATI: Well, then I'd ask that we
25 be allowed to address this new calculations that

1 were done and rebut that testimony with our panel.

2 HEARING OFFICER FAY: Certainly. Ms.
3 Fox.

4 DR. FOX: And so to summarize the
5 construction equipment exhaust NO2 issue, I
6 believe that Sunrise's analysis is in no way
7 representative of construction emissions. They
8 simply are not reasonably simulated using four
9 ten-foot-high stacks with gases flowing out of
10 them at 71 feet/second, which is what they
11 assumed. That's pretty darn fast.

12 Their analysis grossly underestimates
13 the impact of construction equipment exhaust
14 emissions. If these emissions are analyzed using
15 the more conservative volume method that we use,
16 you get an impact of 528 mcg/cubic meter, which
17 exceeds the state one-hour NO2 standard.

18 If you follow CARB's protocol, the 528
19 would be even higher.

20 I'd next like to talk about the proposed
21 mitigation at the bottom of page 9 and the top of
22 page 10 for mitigating construction impacts.
23 There's a series of bulleted items there --

24 HEARING OFFICER FAY: When you give
25 those page references what document are you

1 referring to?

2 DR. FOX: This is the air quality non-
3 meteorology testimony.

4 HEARING OFFICER FAY: Thank you.

5 DR. FOX: On the bottom of page 10 (sic)
6 there's three bulleted items and they continue
7 over onto page 10. There's statements throughout
8 Sunrise's air quality testimony to the effect that
9 San Joaquin Valley rule 8 mitigates construction
10 PM10 emissions.

11 And I would like to point your attention
12 to the San Joaquin Valley's CEQA guidelines, which
13 are included as an exhibit to my PSA comments,
14 which is in exhibit 1 of my written testimony.

15 And in the San Joaquin Valley's CEQA
16 guidelines it states on page 51: Air quality
17 mitigation measures must, by definition go beyond
18 existing regulations. Regulatory programs are in
19 place at the federal, state and air district level
20 to reduce air pollutant emissions from nearly all
21 sources. Yet they are not always sufficient to
22 eliminate all air quality impacts.

23 And then on page 60 in the section on
24 fugitive dust control measures, and this is
25 specifically with respect to regulation 8, which I

1 bring up only because Sunrise repeatedly states
2 that their compliance with regulation 8 mitigates
3 all their fugitive dust PM10 impacts, page 60
4 states: The purpose of regulation 8 is to reduce
5 the amount of PM10 entrained into the atmosphere
6 as a result of emissions generated from
7 anthropogenic manmade fugitive dust sources.
8 Compliance with regulation 8 does not constitute
9 mitigation because it is already required by law.

10 Most of what Sunrise proposes is in
11 regulation 8. There are a few exceptions. They
12 have added a few things in this list at the bottom
13 of page 9 and the top of page 10. But not many.

14 The CEQA guidelines go on to list
15 additional things that would constitute sufficient
16 mitigation were they required. And Sunrise does
17 not embrace all of them. And I would like to
18 suggest that they should be required.

19 One of them is, and let me point your
20 attention to page 10, the second bullet, all large
21 trucks will be wheel washed prior to exiting the
22 job site on public roads. The San Joaquin Valley
23 regulations CEQA guidelines specifically require
24 that all trucks be wheel washed, not just all
25 large trucks. So I would like to see the word

1 "large" struck from that.

2 And in addition there are several other
3 mitigation measures in the San Joaquin Valley's
4 guidelines that are required for large
5 construction projects in order to fully mitigate
6 the PM10 impacts.

7 One of them is install windbreaks at
8 windward side of construction areas. They have
9 not recommended that. Another is suspend
10 excavation and grading activity when winds exceed
11 20 miles per hour. They have not recommended
12 that. And the last one is limit areas subject to
13 excavation, grading and other construction
14 activity at any one time. They have not
15 recommended that.

16 Therefore, in my opinion, the
17 recommended fugitive dust control program is far
18 from being adequate to mitigate the impacts of
19 this project, even based on the San Joaquin
20 Valley's own CEQA guidelines.

21 There's some other -- this is just a
22 question. There's a lot of discussions of soot
23 filters in the public health testimony of Dave
24 Stein, and I don't know whether it's appropriate
25 to address that now, or to put that off until

1 public health is brought up.

2 HEARING OFFICER FAY: If the applicant
3 doesn't object I would like to focus the
4 discussion on soot filters at this time, since we
5 have much of it on the record. We have these
6 gentlemen here.

7 Do you have any objection to bringing
8 that up?

9 MR. GALATI: Actually, yes, we do have
10 an objection to that and I'll tell you why. Is
11 you cannot have a meaningful discussion about
12 whether a soot filter until you get into the
13 methodology for calculating health impacts and the
14 different standards.

15 And so I think it would be more
16 adequately addressed in the public health section.
17 And I'm not sure that it would be productive right
18 here.

19 HEARING OFFICER FAY: All right, let me
20 ask this. Ms. Poole, your other two witnesses,
21 are they here to testify as to the feasibility and
22 availability of the soot filters?

23 MS. POOLE: Yes, the feasibility,
24 availability and effectiveness, and those things
25 do not change depending on what the specific

1 public health impacts may be in this case.

2 HEARING OFFICER FAY: Well, I'll sustain
3 the applicant's objection. We'll let your
4 witnesses go ahead and put their testimony into
5 the record, and keeping in mind that there may be
6 some little overlap here. And ask Ms. Fox to hold
7 off until her public health testimony to address
8 Mr. Stein's testimony.

9 DR. FOX: I wanted to make some comments
10 on Joe Loyer's supplemental air quality testimony,
11 as well.

12 I'd like to read to you from the
13 supplemental air quality testimony filed January
14 5th. I'm on page 3. It says: Since publishing
15 the FSA for air quality staff has had discussions
16 with Cinco, Inc., and Catalytic Exhaust Products,
17 Ltd., who represent two major manufacturers of the
18 oxidizing soot filters staff is requiring.

19 I would like to clarify there that
20 Catalytic Exhaust Products, Ltd. is not a major
21 manufacturer of soot filters and oxidizing
22 catalysts. I have been working on these kinds of
23 materials for at least five years now, and I have
24 never heard of them. I believe that they are
25 probably a secondary vendor who buys catalyst

1 materials from other suppliers and packages them.

2 They are not a major vendor.

3 There's only two major vendors of these
4 products in the United States and they are
5 Engelhard and Johnson Mathey. And Engelhard is by
6 far the largest. Engelhard is the largest
7 catalyst supplier in the world.

8 And then I would like to comment on the
9 allegation that there's a requirement that they be
10 able -- that the equipment be able to maintain
11 continuous high exhaust temperature, typically
12 above 700 degrees Fahrenheit. That is not
13 correct. I believe the requirement is 25 percent
14 load at 700 degrees F.

15 And then attached to Mr. Loyer's
16 testimony is a fax from Catalytic Exhaust, which I
17 had to read three or four times to figure out.
18 And I'd like to just point your attention to this.
19 The second paragraph in this fax, and I don't know
20 whether you have it in front of you, has some
21 pretty interesting things in it.

22 They talk about pottery kilns, 17
23 pottery kilns at \$4000 each. And then they talk
24 about the emissions from the pottery kilns and the
25 need to control them. I initially thought when I

1 saw this that the Sunrise project had a
2 requirement for pottery kilns. And I couldn't
3 figure it out.

4 It finally dawned on me that what is
5 being discussed here is an old style soot filter.
6 Soot filters have been around a long, long time.
7 And the early versions of soot filters were pretty
8 primitive. And there was a regeneration problem
9 with them. They plugged up and you had to
10 regenerate them.

11 What they do is remove particulates by
12 trapping it, and then heating up the filter high
13 enough to burn off the particulate matter. So the
14 early generation soot filters decades ago did have
15 the problem that's discussed in this fax.

16 What these pottery kilns actually are is
17 this company, Catalytic Exhaust, isn't a major
18 manufacturer or vendor of this material. And the
19 only things that they can offer are one of these
20 old style soot filters that you use for a day and
21 then you had to take it off of the exhaust, you
22 have to put it in a pottery kiln to burn off the
23 particulate that's been trapped. And then put it
24 back on.

25 That's not how modern soot filters work.

1 This is completely off the wall. Modern soot
2 filters, you install them and they run, there's no
3 problem with plugging, there's no need to
4 regenerate them in a kiln.

5 PRESIDING MEMBER MOORE: Dr. Fox, let me
6 ask you a couple questions about that. Are there
7 major engine manufacturers who use products that
8 are certified or identified that fit this category
9 so that we're not just going negative on the
10 testimony that you're referring to there, but we
11 can add something positive about what's out there
12 in the wide world? Are there engine manufacturers
13 one, and/or original equipment manufacturers
14 who've got equipment that would fit the bill for
15 describing what you just ended on? That is that
16 there are modern methods to deal with this?

17 DR. FOX: Yes. There are modern
18 methods, and I think it's probably best to turn it
19 over to the Engelhard witnesses and let them talk
20 about it.

21 PRESIDING MEMBER MOORE: Because it
22 would be nice to see at least some source material
23 on the record for that. And let me go back to an
24 earlier point that I didn't get to quiz you on,
25 and that is were you the consultant who

1 recommended that the filters be used in the High
2 Desert case?

3 DR. FOX: Yes.

4 PRESIDING MEMBER MOORE: And was the
5 testimony or the data that you supplied in that
6 case substantially the same as it is in this case?
7 Are you making roughly the same case for it?

8 MR. JOSEPH: Commissioner Moore, Marc
9 Joseph. I represented CURE in the High Desert
10 case, as well. The soot filters in the High
11 Desert case came about as a result of a settlement
12 between CURE and High Desert, where the applicant
13 agreed, after investigation, to use these soot
14 filters on the equipment. And as a result we were
15 not ever at the point where we needed to put in
16 testimony, because the applicant agreed to it
17 before we ever reached the evidentiary hearing
18 stage.

19 PRESIDING MEMBER MOORE: Well, now, wait
20 a second. Dr. Fox just said something totally the
21 opposite of that. She indicated that she did
22 testify on these type of filters in that hearing,
23 and that has to have been something that -- or I'm
24 assuming that it was something that the
25 Commissioners relied on. Is that --

1 MR. JOSEPH: We've clarified our
2 recollections. Dr. Fox did prepare written
3 testimony and it was agreed to. There was not an
4 occasion for her to testify orally because both
5 the applicant and staff agreed as a result of the
6 written testimony to include it. So that written
7 testimony is in that record. There was no oral
8 testimony necessary.

9 PRESIDING MEMBER MOORE: And that
10 written testimony is, to a large degree, similar
11 to what you're providing in this case?

12 DR. FOX: Yes. I have a canned soot
13 filter comment that I use in every project I've
14 worked on.

15 PRESIDING MEMBER MOORE: I really wasn't
16 trying to get you to use that kind of phrase,
17 but --

18 DR. FOX: It was developed many years
19 ago, and I update it using the new reports that
20 come out -- I believe the soot filter material was
21 submitted in either a PSA comment -- probably as a
22 PSA comment.

23 Anyway, as I was saying, I believe it
24 was submitted as part of a PSA comment on the High
25 Desert case, but I'm not a hundred percent

1 certain. I'd have to go back and check my
2 records.

3 MS. HOLMES: Just one additional point
4 of clarification on High Desert, as well. Staff
5 did not originally recommend inclusion of the soot
6 filters in the High Desert case. They didn't
7 believe that they were necessary.

8 And we only included them in the final
9 staff assessment at the urging of the two parties
10 who reached a settlement. We saw no reason to
11 oppose it at that point.

12 PRESIDING MEMBER MOORE: In the end you
13 went along with it, but you didn't agree with it?

14 MS. HOLMES: That's correct.

15 PRESIDING MEMBER MOORE: Okay.

16 HEARING OFFICER FAY: Ms. Poole, you
17 have some other witnesses, as well?

18 MS. POOLE: Yes, Mr. Frasch, would you
19 please address Commissioner Moore's question
20 concerning soot filters?

21 HEARING OFFICER FAY: First, let me ask
22 you what your plan is for this testimony, how long
23 it may take. We're right at the noon hour now.

24 MS. POOLE: I believe this will be
25 brief.

1 HEARING OFFICER FAY: Okay.

2 MR. FRASCH: Let me start real quick
3 with Mr. Moore's question about OEM level, we
4 called it OEM, original equipment manufacturing
5 level. Engelhard being the largest, or one of the
6 largest --

7 MR. GALATI: I don't think the witness
8 has been sworn.

9 MS. POOLE: Yes, he has.

10 HEARING OFFICER FAY: Yes, they have.

11 MR. FRASCH: Anyway, continuing on,
12 Engelhard, we work on all levels. We work with
13 Ford, Chevy, the automobiles you drive all have
14 Engelhard catalysts on them.

15 Phase II of that is working with the OEM
16 level, Caterpillar, Cummins, Detroit. We have
17 test cells and we are currently working to certify
18 the 2000 series engines that are the new
19 requirements that are coming out. So Engelhard has
20 proprietary relationships with all the OEMs.

21 We also have approved products, our
22 catalyst, as well as soot filters, are listed with
23 various engine manufacturers, approved add-on
24 lists is what it's called. If you want to modify
25 a piece of equipment you go to the list to make

1 sure you don't violate or void your warranties.

2 So Engelhard works very closely along with us, the
3 Cinco Group, out here in the west, working with
4 the individual dealers, licensed dealers.

5 PRESIDING MEMBER MOORE: Okay, so if I'm
6 getting a Ford diesel product, convert the
7 filter --

8 MR. FRASCH: Right.

9 PRESIDING MEMBER MOORE: -- the
10 oxidizing filter that I might want to put on, it's
11 not likely to be made by Ford?

12 MR. FRASCH: No, Ford contracts -- most
13 of these automotive manufacturers --

14 PRESIDING MEMBER MOORE: It would be
15 certified to work with a Ford engine?

16 MR. FRASCH: Right. We're approved,
17 we're on an approved list. The point to being
18 certified is if you're like working with DOT, like
19 if you want to replace your catalyst on your Sable
20 or something, that's an Engelhard catalyst on
21 that. That's an approved.

22 When you're working on an off-highway
23 type equipment, for example you want to put a Ford
24 tractor down in a hole if you're tunneling where
25 you're in a mine, you have to meet certain

1 requirements. We're on an approved add-on list so
2 they can meet the requirements.

3 PRESIDING MEMBER MOORE: And are there a
4 variety of those kinds of add-ons, a lot of
5 different companies? Or is there one or two
6 primary manufacturers and everyone's using them?

7 MR. FRASCH: There's probably -- yeah,
8 there's quite a few companies out there. But most
9 of them don't make their own catalysts. Engelhard
10 is one of the few that actually manufacturers the
11 whole piece of equipment from start to finish.

12 PRESIDING MEMBER MOORE: So, like if I
13 were to analogize to the computer printer world, a
14 lot of the engines are Canon engines, whether
15 they're found in an Apple product or a Hewlett
16 Packard product?

17 MR. FRASCH: Sure. Or like a Pentium
18 would be a great example, you know, Pentium is
19 across-the-board, whoever makes it.

20 Perkins is an engine manufacturer. I
21 don't know if you've heard of Perkins.
22 Caterpillar bought them about a year and a half
23 ago, but Perkins engines show up in all types of
24 equipment out there. It doesn't have to just be a
25 Perkins tractor. I mean they show up in

1 everything from Komatsus to John Deeres will use a
2 Perkins. So they swap engines out quite a bit
3 that way.

4 PRESIDING MEMBER MOORE: Thank you.

5 HEARING OFFICER FAY: To focus this now,
6 if Sunrise's contractors had a fleet of graders,
7 D9s or whatever, and they needed soot filters on
8 them, can these be added by either your company or
9 somebody else to do what Dr. Fox claims they can
10 do?

11 MR. FRASCH: Yes, sir. In fact, we've
12 been doing it at Avila Beach for the last 15
13 months, perfect example.

14 HEARING OFFICER FAY: All right, and
15 what sort of costs do you cite, in general?

16 MR. FRASCH: Well, what we do is we --
17 going back to looking like, for example, Mr.
18 Loyer's case we were just talking about. Why
19 we're testifying is we were misquoted in that, to
20 be quite honest, erroneous information.

21 We look at each piece of equipment as an
22 individual piece because there's so many different
23 configurations of it. So part of our service,
24 that's Engelhard has private reps. We have a
25 manpower in facilities. We look at each piece of

1 equipment individually and size accordingly
2 depending on load factors and duty cycles and
3 configuration.

4 You can -- there's like four or five
5 different V8 dozers, so you can't just say ABC
6 part goes across the board. You've got to go
7 investigate a little bit.

8 HEARING OFFICER FAY: How about a cost
9 per ton of elimination, PM10 reduction?

10 MR. FRASCH: That I will have to defer
11 back to Phyllis.

12 HEARING OFFICER FAY: Did you hear her
13 quotation?

14 MR. FRASCH: Yes.

15 HEARING OFFICER FAY: And do you agree
16 with it?

17 MR. FRASCH: And that's very accurate.
18 What we're finding is this particular soot filter
19 I have with me today, this design was invented
20 over ten years ago. It's been being used. The
21 regenerative soot filter.

22 Over the last ten years the only real
23 changes are precious metal loadings on it, meaning
24 it's regenerating at lower and lower temperatures.

25 Going back to Phyllis, we don't require

1 700 degrees all the time, we only require 700
2 degrees 25 percent of the 8-hour shift, let's say.
3 That's for 100 percent regeneration. You are
4 regenerating during those off hours, too, when
5 you're at lower temperatures --

6 HEARING OFFICER FAY: As far as you
7 know, as a professional in this area, under oath,
8 was she accurate in citing projects that are now
9 using this?

10 MR. FRASCH: Yes, sir.

11 HEARING OFFICER FAY: And do you have
12 other projects to cite where these are being used?

13 MR. FRASCH: Well, we're currently --
14 yes, sir, we are. Yes. But, --

15 HEARING OFFICER FAY: Would you consider
16 this state of the art for PM10 reduction --

17 MR. FRASCH: Absolutely.

18 HEARING OFFICER FAY: -- in construction
19 equipment?

20 MR. FRASCH: Yes. I'll give you a
21 perfect example is we're working with the DOT,
22 EPA, ARB and South Coast right now. We have 70 of
23 the soot filters being put in the L.A. Basin right
24 now.

25 HEARING OFFICER FAY: Is it considered

1 in the trade an off-the-shelf type of technology?

2 MR. FRASCH: Yes. I mean it's ten years
3 old, it's not, you know, new. It's just getting
4 better right now, we're developing.

5 HEARING OFFICER FAY: Anything further,
6 then?

7 MR. FRASCH: Real quick, I mean if you
8 want me to correct Mr. Loyer's statement, there's
9 quite a few errors in that, and I'd like to go
10 over that with you, page 3 again that Phyllis was
11 reading from.

12 I think we already hit upon the 700
13 degrees so we don't need to beat that further.

14 Dropping down to the third paragraph he
15 mentions the --

16 HEARING OFFICER FAY: Still page 3?

17 MR. FRASCH: Yes, sir. Starting the
18 oxidation catalyst if a post-combustion oxidation
19 device that replaces the muffler. That is wrong.
20 The soot filter is actually a muffler replacement,
21 not the oxidation catalyst.

22 The soot filter, just in its design that
23 your trapping, has a solid block in it. It acts
24 as a silencer, so you're able to remove the
25 muffler with a soot filter, put in the soot filter

1 instead, and that helps lessen the back-pressure
2 problems that historically years ago we had with
3 them.

4 Oxidation catalysts go post- or pre-
5 muffler, but you still need the silencer with
6 them. They have zero silencing to them, or very
7 very low. I shouldn't say zero. Nominal.

8 Number two, on that same paragraph he
9 mentions that oxidation catalysts can remove 40 to
10 45 percent of particulate. First of all, you
11 won't find -- oxidation catalysts aren't designed
12 as a primary PM reducer. They're an oxidation
13 catalyst. You will get some removal of PM just by
14 inherent burning off of hydrocarbons.

15 To generate the 40 to 45 percent, it is
16 do-able, you know, we experiment all the time in
17 our labs. But you'd have to load the oxidation
18 catalyst with metals, load it up real heavy. So
19 what's going to happen is you start creating
20 sulfates with that type of catalyst.

21 That's acceptable in certain places in
22 the world, but here in California you're not able
23 to load catalysts that way, to create sulfates.
24 In fact, ARB is very very sensitive about sulfate
25 make, it's called. Technically it's called

1 sulfate make situation. So that type of oxidation
2 catalyst is not available, or it's not acceptable
3 right now in California.

4 And that's all I have to say on that.

5 MS. POOLE: Mr. Garcia, would you like
6 to add anything?

7 MR. GARCIA: Well, very little. But
8 when we size a soot filter we take into
9 consideration the size of the engine, the duty
10 cycle of the engine, and quite frankly we have to
11 look at the physical limitations, especially in
12 the after-market such as we're talking about to
13 make sure that it will fit properly on the vehicle
14 without being a hindrance.

15 There will be pieces of equipment for
16 one of these factors they may not be able to
17 install one. And in those cases, on previous
18 projects they have used a catalytic converter,
19 because they are physically smaller.

20 But I think in the last case of Avila
21 there were probably 60 or 70 percent of the pieces
22 of equipment accepted soot filters.

23 We try to size the equipment to
24 acknowledge the engine manufacturer's back
25 pressure requirements, and to work within all

1 those parameters.

2 MS. POOLE: Thank you. I have one
3 redirect question for Dr. Fox, that we can take
4 now or after lunch.

5 HEARING OFFICER FAY: Let's hold that.
6 We'll come back with cross-examination of this
7 panel after lunch, and then you can take your
8 redirect.

9 Before we do that I'd like you to move
10 Dr. Fox's testimony, and we'll give it an exhibit
11 number. It will be exhibit 56.

12 MS. POOLE: That is the air quality
13 testimony sponsored by Dr. Fox. We would also
14 like to have Dr. Fox sponsor CURE's PDOC comments
15 in this case, which were docketed on August 31,
16 1999.

17 HEARING OFFICER FAY: Her which
18 comments?

19 MS. POOLE: Her comments on the
20 preliminary determination of compliance.

21 HEARING OFFICER FAY: Those are
22 docketed, correct?

23 MS. POOLE: Correct. They were docketed
24 on August 31, 1999.

25 HEARING OFFICER FAY: And they are an

1 attachment to this exhibit 56, are they not?

2 MS. POOLE: They are not.

3 HEARING OFFICER FAY: They are not?

4 MS. POOLE: No.

5 HEARING OFFICER FAY: All right, so you
6 want them marked for exhibit, as well. That will
7 be exhibit 57.

8 MS. POOLE: And finally, and this is
9 something I would simply like to mark for
10 identification at this time. CURE filed comments
11 on the proposed prevention of significant
12 deterioration permit on January 7th, and those
13 comments were due. Those have been docketed
14 today. I'd like to just mark those for
15 identification right now, give the other parties
16 an opportunity to review them, and then move them
17 in at a later time.

18 HEARING OFFICER FAY: All right. These
19 are CURE's comments on the PSD.

20 MS. POOLE: Right.

21 HEARING OFFICER FAY: Application,
22 correct?

23 MS. POOLE: Correct.

24 HEARING OFFICER FAY: Those will be
25 exhibit --

1 MS. POOLE: Excuse me, PSD draft permit.

2 HEARING OFFICER FAY: Okay, and those
3 were docketed today?

4 MS. POOLE: Correct.

5 HEARING OFFICER FAY: All right. Now
6 we'll break for lunch and return here at 1:15, in
7 one hour.

8 (Whereupon, at 12:15 p.m., the hearing
9 was adjourned, to reconvene at 1:15
10 p.m., this same day.)

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1 AFTERNOON SESSION

2 1:20 p.m.

3 HEARING OFFICER FAY: Yes, sir, could
4 you please introduce yourself.

5 MR. ALLEN: My name is Larry Allen; I'm
6 the Air Quality Planning Manager for the San Luis
7 Obispo County Air Pollution Control District.

8 And before I begin can I ask why my
9 comments are being made off the record?

10 HEARING OFFICER FAY: They are on the
11 record.

12 MR. ALLEN: Oh, can we go back on the
13 record?

14 HEARING OFFICER FAY: We are on the
15 record.

16 (Laughter.)

17 MR. ALLEN: I guess I misunderstood.

18 I appreciate the opportunity to provide
19 comments, and I guess I'd like to start by
20 offering an apology for our late entrance into
21 these proceedings.

22 I don't know if you've had the
23 opportunity to read my comment letter, but we were
24 made aware of this project and several of the
25 other projects out there in the San Joaquin Valley

1 just a few months ago. And have not had the
2 opportunity to look at all the information that
3 was presented when these proceedings began,
4 through the application process for Sunrise.

5 And we are not all that conversant with
6 the formal requirements of the Energy Commission,
7 and all the filings and so forth. So it kind of
8 took us quite awhile to get up to speed. So, I
9 know that's pretty inconvenient for everyone for
10 us to enter at the last minute and I apologize.

11 But I believe that we do have
12 significant concerns that merit your consideration
13 and we would hope that you would give them due
14 consideration in your decision-making process.

15 Our primary concern is that we believe
16 that there is the potential for impacts to our
17 county from emissions that can be transported from
18 this project, and the other projects that are
19 right in the vicinity of Sunrise, into San Luis
20 Obispo County.

21 Right now they Air Pollution Control
22 District is a nonattainment area for both the
23 state ozone standard and the PM10 standard. We
24 are an attainment area for all federal air
25 pollution standards. But the feds have recently

1 adopted a new standard that will probably be
2 implemented within the next year, that's an 8-hour
3 ozone standard. And we're right on the edge of
4 violating that standard.

5 And we have raised significant concerns
6 about this to the Air Resources Board because data
7 from all of our monitoring sites, with one
8 exception, show that over the last nine years
9 since we began implementing our clean air plan
10 that the emission reductions that we've achieved
11 for ozone precursors in our district have been
12 significant, and have shown a corresponding
13 decrease in ozone levels throughout the county,
14 with the exception of our east county and
15 northeast county monitoring sites, particularly at
16 Paso Robles.

17 And the Air Resources Board has had a
18 look at that. They performed a comprehensive
19 study of the meteorological transport originating
20 from the northcoast basin, the San Joaquin Valley,
21 Bay Area and San Luis Obispo. And they produced
22 many many documents a couple of feet thick. And
23 their findings were that San Luis Obispo County is
24 impacted by transport from the San Joaquin Valley
25 and also from the northcoast air basin.

1 But their findings are that we receive
2 inconsequential transport, significant transport,
3 and overwhelming transport depending upon the
4 situation looked at.

5 Inconsequential means that emissions
6 from our county are indeed responsible for some of
7 the violations that we experience. Significant
8 means that we share responsibility with another
9 area that is transporting pollutants into our
10 county. Overwhelming means that under certain
11 meteorological conditions we can be overwhelmed by
12 emissions from another area that, alone, are
13 causing exceedences of the standards.

14 And that poses much concern to us
15 because if we are receiving significant transport
16 from other areas and we're that close to violating
17 the federal standards, we could face a situation
18 in the very near future where we actually exceed
19 those federal standards and are designated as
20 nonattainment, which could impose significant new
21 regulatory burdens upon us as an agency, and also
22 upon our local industry and all the attendant
23 economic impacts associated with that.

24 And so we realize that we needed to
25 start looking at these projects and are reviewing

1 the final staff assessment for Sunrise. There's
2 three main issues that we looked at that caused us
3 concern.

4 The first of those is that we don't
5 believe that it adequately addresses the transport
6 issue. We also believe that indirect emissions
7 from the well drilling operations are downplayed.
8 And finally, we think that the mitigations and the
9 offsets being provided will not adequately
10 mitigate the impacts to our district.

11 To address the first of those, the Air
12 Resources Board, as I mentioned, has performed a
13 study showing that there is the potential for
14 significant and overwhelming transport of
15 pollutants into our district.

16 One of the transport corridors that they
17 looked at, that they showed a connection with, was
18 air being transported down through the entire
19 valley that loops around in the southern end of
20 the San Joaquin Valley and comes up through the
21 southern part of our county and moves up towards
22 the north directly in the area of where Sunrise
23 and these other projects are going to be located.

24 And in the final staff assessment the
25 staff conclude that there is not going to be a

1 significant impact to San Luis Obispo County, and
2 they based that on a series of what I believe are
3 faulty assumptions.

4 The first of those assumptions assumes
5 that there's going to be no net increase in
6 emissions from the project, and therefore that's
7 going to negate any potential impact to our
8 district.

9 But, as you heard from staff already,
10 and as is written into the staff report, there is
11 considerable uncertainty as to the adequacy and
12 efficacy of the emission offsets being provided by
13 the applicant.

14 And we're primarily concerned with the
15 NOx emission offsets, in this case as a precursor
16 to ozone pollutants' about 80 percent of those
17 offsets are being provided from one source, from
18 ERA Corporation. I think the number is 921026 is
19 the project number from the San Joaquin Valley.

20 Those offsets have been in dispute by
21 EPA and the Air Resources Board since 1993. EPA's
22 argument has been that they are not surplus, they
23 are not enforceable, and therefore they're not
24 legal to use.

25 And to us, the surplus issue is a very

1 large concern because the law requires that they
2 be adjusted to reasonably available control
3 technology levels at the time of their use. And
4 I'm not going to go into all the specific details
5 of that, but essentially they have to be
6 discounted to whatever the control requirements
7 are in place at that time, rather than using the
8 full emission reduction you got from whatever
9 control technology was put in place at the time
10 the ERC was issued.

11 And they apparently have not done that,
12 which means that the emissions from this project
13 are not really being fully offset. They're only
14 being offset by a fraction of what those ERCs are
15 really valued at.

16 And if that's the case, then this
17 represents a real and substantial increase in
18 emissions from this project that is not going to
19 be mitigated. There is going to be a net
20 emissions increase. And actually even ignoring
21 that fact entirely, if you look at the age of
22 these emission reduction credits, we have been
23 experiencing transport problems right now with
24 those emission reductions in place already.

25 And so in terms of actual impact to our

1 district, even if the offsets were legal, we are
2 going to potentially see new emissions coming into
3 and contributing to or exacerbating the existing
4 transport problem. And that doesn't just apply to
5 Sunrise. That applies to all the projects that
6 are being proposed in that area. So that is a
7 significant concern to us.

8 Also, the total amount of offsets
9 appears to be at issue. And I guess staff
10 reversed themselves on their opinion on this, but
11 the conditions in the permit would allow the
12 applicant to have up to 60 minutes of start-up and
13 shut-down emissions which are typically much
14 higher than the normal operating emissions. And
15 yet the offset liabilities calculated for the
16 project only require offsets for a 20-minute
17 start-up/shut-down. The delta incremental
18 difference is a couple of tons per year. And
19 that, we believe, is inappropriate.

20 You're required to offset the potential
21 to emit. And in this case, the potential to emit
22 is stated in the permit condition as a 60-minute
23 start-up/shut-down event, therefore they should be
24 required to offset that.

25 So, we're concerned with the offset

1 package that's being proposed here.

2 Our second major area of concern deals
3 with the indirect emissions impacts, and we
4 believe that those are underestimated. This
5 project, as part of the project there's going to
6 be 700 new wells constructed and operated. And
7 there will be substantial emissions associated
8 with that, NOx emissions, in particular, in terms
9 of the construction. The drilling of the wells
10 are estimated about 279 pounds per day.

11 And the modeling has shown that there is
12 the potential to cause violations of the state NOT
13 standard. Well, they came very close under
14 staff's modeling, and I know that CURE has some
15 different modeling to show higher impacts. But,
16 just under the staff analysis drilling of one well
17 would come very close to the state standard. I
18 forget what the numbers were, but they were within
19 90 percent of the standard, I believe.

20 And if you drill two wells
21 simultaneously you could violate an NO2 standard.
22 And they call that an insignificant impact because
23 of its short duration, two to three days. Well,
24 state law does not allow consideration of duration
25 for the violation of an air quality standard.

1 If you are permitting a project that has
2 a potential of violating a standard, you must
3 mitigate that so that the standard is not
4 violated. Otherwise they can be designated as a
5 nonattainment area for NO2, and have additional
6 regulatory impacts associated with that. So,
7 that's significant.

8 Also, I don't understand the argument
9 for short-term duration because the applicant's
10 schedule for well drilling shows 700 wells to be
11 drilled over a period of six years, which averages
12 about 120 wells per year.

13 If each of those wells takes two to
14 three days to drill and case, they're essentially
15 going to be drilling every day of those six years.
16 If you multiply 279 pounds per day times
17 throughout that period you wind up with emissions
18 of around 36 or 37 tons per year for a six-year
19 period. That is not a short-term duration under
20 anybody's definition.

21 I believe that EPA has a definition for
22 temporary construction impacts that looks at
23 projects of two years or less.

24 So we believe that mitigation of these
25 well-drilling emissions is essential. And I think

1 that first of all to reduce the emissions directly
2 from the equipment you can apply injection timing
3 retard of two to four degrees. That's standard
4 technology; we use it all the time in San Luis
5 Obispo. And it can reduce NOx emissions by up to
6 40 percent.

7 One of the things it does do is it
8 decreases the performance of the equipment. So to
9 overcome that one technology that's been used, and
10 the Engelhard representatives may be able to speak
11 to this, is that you can coat the combustion parts
12 of the engine, the pistons and valves and
13 cylinders and so forth with ceramic coatings that
14 can increase the performance back to the pre-
15 operating levels before you retarded the timing.

16 It also reduces VOC emissions and PM10
17 emissions which tend to increase when you retard
18 the timing. So it takes care of that problem, as
19 well.

20 So I would recommend that you require
21 that condition in order to reduce those NOx
22 emissions.

23 We also believe that you should require
24 full mitigation for the residual emissions from
25 the well drilling, because of the fact that

1 there's going to be about 36 times per year, that
2 has the potential, we believe, to contribute to
3 ozone formation in San Luis Obispo County.

4 And this is not a new thing to be done.

5 In fact, this was a requirement of a 65-well
6 addition that was proposed in our county by Sweppe
7 back in 1994, and through CEQA it was found to be
8 a significant impact. And they wound up
9 offsetting all of the emissions from those 65
10 wells. It was about 37 tons total. And I
11 attached some documentation to my comment letter
12 that shows how that occurred.

13 The second area of indirect emissions
14 I'd like to address are the well operations. We
15 believe that those are underestimated, as well.
16 The staff report shows 57.9 tons of VOCs, but it
17 appears that they are only looking at fugitive
18 emissions from the wells, themselves, and the
19 wellheads.

20 All of the product from the wells when
21 it gets produced goes through an incredible
22 process of water separation, storage and sumps,
23 storage and tanks, heater treaters involved, and
24 there are emissions associated with every single
25 phase of that treatment of that product.

1 And it does not appear to me, in my
2 review of it, that any of that was taken into
3 account. Those emissions could well be on an
4 order of magnitude larger than just the fugitive
5 VOC emissions that were calculated. So I believe
6 that that needs to be looked at.

7 In addition, staff assumed a 99 percent
8 control efficiency for treating of the fugitive
9 VOC emissions that they did analyze, which is
10 inappropriate, I believe. It's typical to use
11 about 95 to 95 (sic) control efficiency for the
12 control device, itself, but that doesn't take into
13 account the vapor collection, collecting all of
14 those vapors, which is -- there's a lot of areas
15 for the vapors to escape before they ever get into
16 the control device.

17 In our permitting we usually assume
18 about an 80 percent efficiency of the vapor
19 collection. So if you multiply that times 99, you
20 get closer to an 80 percent control efficiency,
21 rather than 99.9.

22 The final staff assessment pretty much
23 says that the emissions from the well operations
24 are insignificant in terms of their effect on our
25 county, as well, because they say that they will

1 be fully offset by VOC offsets.

2 And I'm concerned that the VOC offsets
3 may suffer the same sort of uncertainties that the
4 NOx offsets do. And I would ask that your
5 Commission evaluate the adequacy of those offsets
6 before granting the project approvals for those.

7 So, to summarize, we believe that
8 transport to San Luis Obispo County has not been
9 adequately addressed. We believe that the
10 emissions impacts from well construction and
11 operation are significant, but they are
12 significantly downplayed in the final staff
13 assessment.

14 We don't believe that the mitigations
15 and offsets that are being provided are going to
16 be adequate to prevent potential significant air
17 quality impacts to San Luis Obispo County. And
18 these are all significant shortcomings to the
19 final staff assessment that we feel need to be
20 rectified before your Commission has the
21 information it needs to make a decision on
22 approval of this project.

23 So, we would ask your Commission to
24 require additional analyses of those issues to
25 insure that all emissions and impacts are properly

1 evaluated; that the emissions are controlled
2 onsite to the maximum extent feasible; and that
3 offsets are provided that are adequate and will
4 fully minimize any impacts potentially to our
5 county.

6 I guess one last comment would be that
7 there has been a lot of discussion over the
8 adequacy of use of soot filters and oxidation
9 catalysts and so forth. And just as a sidebar, we
10 have been using those in San Luis Obispo County
11 now, as was mentioned by Engelhard, for the last
12 15 months.

13 We've found no problems with those.
14 They've operated well. We've talked to the
15 equipment operators about them. They don't even
16 notice that they're on the equipment. And I would
17 estimate that it's going to become standard
18 technology and probably a requirement through the
19 Air Resources Board because of the fact that it's
20 really the only way to reduce diesel particulate
21 soot emissions that have been designated as a
22 toxic and carcinogenic air contaminant by the Air
23 Resources Board.

24 And we're going to find this, I think,
25 on not just off-road construction equipment, but

1 it's going to have to start going on on-road
2 trucks and so forth that pull into warehouses and
3 so forth that are in direct contact with the
4 public. So, I don't think there's any dispute
5 over the adequacy of that technology.

6 I appreciate the opportunity to comment.

7 PRESIDING MEMBER MOORE: Let me ask you
8 just one question before you leave the dias, and
9 that is you heard, because you've been sitting
10 here through the whole hearing, you've heard the
11 CURE testimony this morning regarding the use of
12 the offsets.

13 Do you concur that they are available
14 for use as mitigation for the project, and not for
15 the construction phase? Is that the way the
16 district treats it?

17 MR. ALLEN: I have a little bit
18 different take on that. And I agree entirely that
19 they are not appropriate for use as mitigation for
20 emissions impacts that have a potential to violate
21 a standard, because they will; not mitigate that.

22 They're already banked emission
23 reduction credits. There's no way that they can
24 reduce that impact. Therefore, you have to
25 actually mitigate those emissions on site

1 contemporaneously with when they occur in order to
2 provide adequate mitigation there.

3 However, I do agree that offsets can be
4 used for emissions, uncontrolled emissions that
5 occur over the long term of a construction
6 project, or the short term, however you say, to
7 try and mitigate the nonstandard violation type
8 impacts.

9 And that is one of the things that we
10 required of Swebpe in their project where they
11 added 65 new wells. You know, they tried to look
12 at those as construction, short-term construction
13 impacts. We saw it differently. And they agreed
14 to fully mitigate, after applying the control
15 technology, to mitigate the remaining emissions
16 through the use of offsets. They were not in the
17 same situation of potentially violating a
18 standard, because they did do timing retard and
19 other mitigations to reduce their NOx emissions.

20 PRESIDING MEMBER MOORE: So you'd treat
21 it differently for someone who was in a position
22 to be a violation?

23 MR. ALLEN: Yes. If you have a
24 potential standard violation there's no way that
25 offsets can mitigate that. They can't. You have

1 to reduce the emissions at the source and make
2 sure the violation does not occur.

3 PRESIDING MEMBER MOORE: Let's go down
4 the road a little bit on your statement about the
5 emissions credits and the bank. It's a complex
6 world where a lot of these banked credits decline
7 over time, or some of them have declined and then
8 stabilized at some point where they're put in the
9 bank.

10 They may be in the bank long enough so
11 that your statement prevails, that is their value
12 that they provided has been overcome by growth.
13 In other words, the background level of pollution
14 has grown above the diminishment that they caused
15 when they were banked.

16 And I'm concerned that we don't seem to
17 have a good handle on what that volume is, not the
18 fault of the applicant, this is not to indict
19 them, it's just a very generalized kind of
20 statement.

21 Do you maintain a list or some sort of
22 valiative database that says what the status of
23 those credits are, how they've declined, where
24 they're located, or where they came from for your
25 district?

1 MR. ALLEN: Yes. You're required to do
2 that by law. And there's very stringent tracking
3 requirements that are in place at both the federal
4 and the state level, to require tracking of that.

5 One of the ways to try and minimize that
6 diminishment impact that you were talking about, I
7 believe that was probably the rationale that EPA
8 used in making their ruling that you have to
9 discount the use of those ERCs, you have to
10 discount the level of ERCs at the time of use, to
11 the control technology requirements in place at
12 that time. Which essentially says, you know, if
13 they were going right now to reduce those
14 emissions you would only get a small increment,
15 any surplus where you controlled beyond what the
16 existing requirement was.

17 PRESIDING MEMBER MOORE: So any one of
18 them has the potential to be zeroed out at some
19 point in the future. Still in the bank, but they
20 have zero value to trade?

21 MR. ALLEN: Exactly. They can be zeroed
22 out, if you have a rule come down the road before
23 those ERCs get used, they can be totally worthless
24 once that rule comes.

25 PRESIDING MEMBER MOORE: Does your

1 district coordinate with your neighboring district
2 in San Joaquin regarding the nature and location
3 of the credits?

4 MR. ALLEN: No. We haven't to date.
5 Our engineering staff are the ones that take care
6 of that. And we all sit on statewide committees
7 through CAPCOA, the California Air Pollution
8 Control Officers Association. And our engineering
9 manager, I know, speaks with their engineering
10 manager about issues similar to this.

11 But districts are fairly separate
12 entities that kind of develop their own rules and
13 go their own way in a lot of areas, which makes it
14 difficult for industry. In California especially,
15 because the requirements of one district are not
16 necessarily the same in another.

17 PRESIDING MEMBER MOORE: There's four or
18 five cases, as you're probably painfully aware of,
19 that are coming up in this area. I mean if you
20 drew a geographic circle it wouldn't be very big
21 to encompass the number of projects that are in
22 this same area.

23 MR. ALLEN: Right.

24 PRESIDING MEMBER MOORE: And I have no
25 doubt that if you're concerned in this, you may

1 indeed be concerned in some of the others.

2 MR. ALLEN: We are.

3 PRESIDING MEMBER MOORE: Has anyone from
4 our staff from the Energy Commission contacted you
5 regarding the comprehensive nature of credits to
6 get background data, do original research about
7 where the status of credits, either for NOx or
8 PM10 or any other type of credit that you might be
9 holding?

10 MR. ALLEN: No. For like if they could
11 actually get offsets in our county?

12 PRESIDING MEMBER MOORE: Right.

13 MR. ALLEN: No. We have not been asked
14 about that.

15 PRESIDING MEMBER MOORE: Nobody's paid
16 you any visit to ask --

17 MR. ALLEN: No.

18 PRESIDING MEMBER MOORE: -- or question,
19 kind of classic, original research?

20 MR. ALLEN: No. To be honest -- well,
21 actually I take that back. Not in regard to these
22 projects at all, but in the -- your staff has been
23 very proactive early on in the developing
24 guidelines for the whole process and, you know,
25 through the deregulation process and so forth.

1 We've worked very closely with David
2 Maul, Chris Tooker, Matt Layton, several others.
3 And they have looked -- in fact, I think that
4 their emissions -- I forget the name of it -- some
5 report they generated not too long ago, a few
6 months back, looked at the availability of offsets
7 in all the districts. They did talk to us about
8 it then.

9 We don't have a very large bank in our
10 area. We don't have a lot of industry there.
11 But, yeah, they have looked at that. But not
12 specific to these projects.

13 PRESIDING MEMBER MOORE: Thank you.
14 Commissioner Rohy?

15 VICE CHAIRMAN ROHY: Well, I'm not sure
16 whether I'm on point or not, but I just read over
17 the weekend where San Luis Obispo County is one of
18 the fastest growing areas, is that correct?

19 MR. ALLEN: That is correct. Especially
20 our north county, the Paso Robles area.

21 VICE CHAIRMAN ROHY: The question I'd
22 have, and I don't think it's appropriate here, so
23 I'll pass on it, but I was wondering how you track
24 all the emissions from the increased automobile
25 traffic. How does that correlate with the

1 patterns?

2 MR. ALLEN: Well, we do that through our
3 emissions inventory. We're required to develop an
4 annual emissions inventory every year. And a very
5 comprehensive update to that occurs about every
6 other year or every third year.

7 And we use different population based
8 factors, the Air Resources Board works with us
9 very closely to develop those inventories for our
10 district.

11 So it does take into account the
12 population growth.

13 VICE CHAIRMAN ROHY: Thank you.

14 HEARING OFFICER FAY: We want to thank
15 San Luis Obispo Air District for their comments.

16 I have discussed the scheduling plans
17 the applicant has for their cross-examination and
18 rebuttal on this, and the timing.

19 And I think that we ought to move ahead
20 and get back on schedule, finish up this topic
21 before we move on.

22 So, Mr. Galati.

23 MS. POOLE: Excuse me, I do have some
24 questions on direct, first.

25 HEARING OFFICER FAY: Oh, you have

1 questions on direct? Sure.

2 MS. POOLE: Yeah. We're back to this
3 panel, correct?

4 HEARING OFFICER FAY: Yes, for your own
5 witnesses? Yes.

6 MS. POOLE: Okay. They'll be quick.

7 First, I would like to point out that
8 Mr. Garcia and Mr. Frasch have brought with them
9 some literature about the soot filters which we
10 would be happy to supply to the Commission and to
11 the parties, if that would help educate the
12 Commission about --

13 PRESIDING MEMBER MOORE: Sure, I think
14 we'd like to have them. I assume -- he's got
15 several there, so there's enough for the
16 applicants, as well.

17 MS. POOLE: Okay.

18 (Pause.)

19 MS. POOLE: There are some more here if
20 anybody else would want some.

21 DIRECT EXAMINATION - Resumed

22 BY MS. POOLE:

23 Q Dr. Fox, the witnesses for the applicant
24 testified on direct that they used drill rig stack
25 parameters to model construction equipment

1 emissions. Are drill rig engines representative
2 of construction equipment engines?

3 A No, they're not. Drill rig engines are
4 very different for two reasons, actually three
5 reasons. The first is drill rig engines are
6 usually quite a bit larger in terms of horsepower
7 than construction equipment engines.

8 Second, the operating mode is very
9 different. As you well know, construction
10 equipment has a lot of idle time. They start up
11 and they shut down.

12 Drill rigs, on the other hand, operate
13 flat out. I mean a drill rig has to drive half a
14 million to a million pounds of steel into the
15 ground. And so they often operate at full
16 throttle as opposed to idling like construction
17 equipment.

18 And third, the engines that you find on
19 drill rigs are typically all dirty engines that
20 have been retrofit to maximize the horsepower.

21 Q With respect to your experience with the
22 use of soot filters at Avila Beach, who did you
23 work for on that project?

24 A I worked for UnoCal.

25 Q And what was your recommendation to your

1 employer regarding soot filters?

2 A I recommended that they install soot
3 filters on the construction equipment to mitigate
4 health impacts from diesel exhaust and acrolein.

5 Q And did Unocal follow your
6 recommendation?

7 A Yes.

8 Q And finally, did you find the cite to
9 the article that Commissioner Moore asked about
10 earlier?

11 A I did. This is an article entitled,
12 "The Impact of Retrofit Exhaust Control
13 Technologies, Emissions from Heavy-Duty Diesel
14 Construction Equipment."

15 It was a study that was done by NESCAM,
16 which stands for the NorthEast States for
17 Coordinated Air use and Management. And as I
18 testified earlier, it's kind of the New England
19 version of California's CAPCOA.

20 And the study evaluated the use of soot
21 filters and oxidation catalysts on a range of
22 different types of construction equipment. They
23 report efficiencies.

24 And they conclude: Based on the results
25 of this study retrofitting the 200,000 diesel

1 engines used in construction equipment with
2 oxidation catalysts in the Northeast would reduce
3 particulate emissions up to 4000 tons per year,
4 carbon monoxide up to 45,000 tons per year, and
5 hydrocarbons up to 7000 tons per year.

6 By the way, let me give you the
7 reference. It's the Society of Automotive
8 Engineers technical paper 1999-01-0110, March
9 1999.

10 PRESIDING MEMBER MOORE: Thank you,
11 appreciate it.

12 DR. FOX: I also found the reference
13 that you asked about with respect to cost
14 effectiveness of construction equipment retrofits.
15 And there was a recent study published in 1999,
16 again, called, "Demonstration of Advanced Emission
17 Control Technologies Enabling Diesel-Powered
18 Heavy-Duty Engines to Achieve Low Emission
19 Levels."

20 And it's a study that was done by the
21 manufacturers of Emission Controls Association.
22 And this study evaluated the cost effectiveness of
23 these controls and concluded that it ranged from
24 \$2250 to \$6500 per metric ton. A metric ton is
25 bigger than a normal ton. You have to divide by

1 1.2. So that is definitely within the range of
2 cost effectiveness for most pollution control
3 equipment.

4 MS. POOLE: And this panel is available
5 for cross.

6 HEARING OFFICER FAY: Mr. Galati.

7 CROSS-EXAMINATION

8 BY MR. GALATI:

9 Q Mr. Frasch, is it? How do you spell
10 that?

11 A F-r-a-s-c-h.

12 Q Am I pronouncing it correctly?

13 A Absolutely, yes.

14 Q Your job at Engelhard is to promote the
15 sale of the soot filters?

16 A Sales and installation. We handle any
17 warranty issues that, you know, --

18 VICE CHAIRMAN ROHY: Excuse me, could
19 you speak closer to these microphones, they're
20 very sensitive to position.

21 MR. FRASCH: Okay, sorry about that.

22 MR. GALATI: And, Mr. Garcia, would that
23 be fair to say for you, too, your job is to
24 promote the sale of these soot filters?

25 MR. GARCIA: Yes. We're really

1 employees of Cinco Group. We are the Engelhard
2 distributor.

3 MR. GALATI: Oh, I see, okay. Are
4 either of you aware of any district in California
5 that requires a soot filter by regulation?

6 MR. FRASCH: No, but the few
7 requirements we have had have been on a case-by-
8 case situation. There has been air districts that
9 required it maybe on a specific site. But it's
10 not a standing rule, so I mean these are known to
11 the air districts, though.

12 MR. GALATI: What warranty or guarantee
13 of emission reductions does the manufacturer give?

14 MR. GARCIA: Each site is approached on
15 a site-by-site or application-by-application
16 basis, looking at what they're operating, what the
17 job is to perform.

18 And in most cases customers have not
19 asked us for a particular level of guarantee. We
20 give them typical performances, but we do have a
21 couple of customers that we're working on right
22 now that we have advised them we will operate at a
23 particular level that they want to achieve.

24 It's not something that on the diesel
25 soot filter has been something that has been a

1 guarantee request.

2 MR. GALATI: What is that example you
3 sited, what are those guarantees? What kind of
4 range?

5 MR. GARCIA: We typically remove, as
6 typical performance, particulate in the 90 percent
7 range. We actually claim to go higher, but I'm
8 saying 90 percent. Again, it depends on the
9 application.

10 And in the CO and hydrocarbon area
11 you're looking 80 to 90 percent. Again, we go
12 higher, but those are typical numbers.

13 MR. GALATI: Okay, and would those apply
14 across the board to different types of
15 construction equipment?

16 MR. GARCIA: No, it varies. If the
17 engine's being operated the same way and the same
18 size engine, the performance should be similar.

19 MR. GALATI: Have you done any testing
20 to substantiate those guarantees or --

21 MR. GARCIA: I believe there are test
22 reports to -- in some of the documents in the
23 handout we gave you will have some test reports,
24 and we can certainly get you more.

25 MR. GALATI: As part of your guarantee

1 on emissions or effectiveness, do you offer any
2 warranty or a guarantee on the performance of the
3 equipment on which it is attached? For example,
4 if you attached it to a scraper, would you
5 guarantee the performance of that scraper, that
6 won't be diminished?

7 MR. GARCIA: That the performance of the
8 scraper would not be diminished?

9 MR. GALATI: Yes.

10 MR. GARCIA: Well, I think we size --
11 that's part of the applicant of the soot filter is
12 that we size the soot filter for catalytic
13 converters or anything we put on for an after-
14 treatment to meet the requirements of the engine
15 manufacturer with regard to primarily back
16 pressure.

17 MR. GALATI: But do you offer any
18 warranty or guarantee that it will --

19 MR. GARCIA: We offer a warranty --

20 MR. GALATI: -- for example, not cause
21 additional back pressure?

22 MR. GARCIA: We have not because we've
23 not been requested. We advise the customer what
24 the unit has been sized to and in the cases where
25 we've applied these, we've not had that as an

1 issue, as a problem at all.

2 MR. GALATI: With respect to -- you
3 don't have a soot filter for each type of
4 equipment, correct?

5 MR. GARCIA: That's correct.

6 MR. GALATI: Did you look at the type of
7 construction equipment that would be used in the
8 Sunrise project?

9 MR. GARCIA: We looked at some of them.
10 Some of them we were familiar with. And the first
11 thing we asked people in the short timeframe we
12 had was to the size of engine, as the soot filters
13 being sized to handle a certain capacity of
14 engine, cubic inch displacement. And with that we
15 learn the exhaust flow and what we can expect for
16 performance of the engine. And that's typically
17 how we size the soot filter.

18 Following on to that what we've done,
19 and I'll cite Avila, is that we then inspected the
20 equipment. And there were cases where we had to
21 make special modifications to the soot filter for
22 inlet and outlet requirements.

23 And then there were certain units,
24 because of duty cycle, size, all of the above,
25 where we elected not to use a soot filter because

1 it wasn't practical on that job.

2 MR. GALATI: Since you cite Avila,
3 sounds like you guys are out there on a fairly
4 routine basis during the project. Why are you out
5 there that much on a fairly routine basis?

6 MR. GARCIA: That's just part of the
7 customer service we provide. Quite frankly, after
8 they asked us for prices on the equipment, we try
9 to, every contract who called us on this
10 particular project, I think we were contacted on a
11 Thursday before Christmas, and the following
12 Monday we tried to meet with each one personally,
13 just to try and support, answer questions.

14 MR. GALATI: And would you anticipate if
15 there was a soot filter on the Sunrise project
16 that you would have to be out present on the site?

17 MR. FRASCH: I don't think it's have to
18 be. It's our customer service. That's how Cinco
19 Group does business. The operator feels good, you
20 know, and we feel good. We have not had any
21 problems. It's probably because we've been out on
22 the sites and working with the customer.

23 MR. GALATI: Okay, you mentioned that
24 you had met with people with respect to the
25 Sunrise project.

1 MR. FRASCH: Right.

2 MR. GALATI: Did you develop a cost for
3 the project?

4 MR. FRASCH: You mean did we give
5 budgetary pricing?

6 MR. GALATI: Did you develop a cost so
7 the Committee would have some idea of what this
8 soot filter is going to cost to the project?

9 MR. GARCIA: We gave a budgetary number
10 based on engine size, on equipment, to the various
11 contractors who contacted us.

12 MR. GALATI: And what are those numbers?

13 MR. FRASCH: When we're working with the
14 contractors, for example I was there in
15 Bakersfield, you know, meeting each person
16 individually. They necessarily -- the RFQ was due
17 Tuesday. I was there Monday. They inquired
18 Christmas Eve from us.

19 So I was there Monday. What they did,
20 it's kind of in-house proprietary anyway. They're
21 not giving away, they don't want out on the street
22 what they're quoting, obviously. So what they did
23 instead is they gave me an equipment list, had me
24 size different pieces, but they did not give us a
25 total count of, for example, five excavators,

1 three, you know, scrapers.

2 So, can I give you a total price? No, I
3 cannot.

4 MR. GALATI: Well, I'm not talking about
5 a total price to pin you down that you have to
6 sell it for that, but we're trying to get a range.
7 Is this a \$1000 item, or is it a \$400,000 item.

8 MR. FRASCH: Okay, that's different.

9 MR. GARCIA: No, as an average you'd
10 probably say if they were to use a soot filter on
11 a number of pieces of equipment, we gave them
12 numbers without -- we do not provide installation,
13 but just assuming a standard unit, they were
14 probably going to be in the area of just for
15 talking, around \$10,000.

16 MR. GALATI: \$10,000 apiece?

17 MR. GARCIA: Yeah, average, for each.

18 MR. GALATI: And that didn't include
19 installation?

20 MR. GARCIA: That's correct.

21 MR. GALATI: Is there also a service
22 contract that you would charge? For example, you
23 had to size them for each individual, do you
24 charge for that service?

25 MR. GARCIA: No.

1 MR. GALATI: Okay. Do you charge for
2 any maintenance?

3 MR. GARCIA: No.

4 MR. GALATI: I think it was you, Mr.
5 Frasch, that said you were aware of the Big Dig
6 project?

7 MR. FRASCH: Yes.

8 MR. GALATI: As I understand that's one
9 of the biggest construction jobs --

10 MR. FRASCH: Large, yes.

11 MR. GALATI: What's the duration of that
12 project?

13 MR. FRASCH: That's been going on almost
14 two years now. And I'm not sure how long it's
15 going to go on.

16 MR. GALATI: And where is that located?

17 MR. FRASCH: Boston, Massachusetts.

18 MR. GALATI: Okay.

19 MR. FRASCH: That is not our area, but
20 we keep in contact, you know, know what's going
21 on.

22 MR. GALATI: Okay, fairly high
23 population center?

24 MR. FRASCH: Absolutely.

25 MR. GALATI: The San Diego Padres

1 Stadium, is that also in a fairly high population
2 center?

3 MR. FRASCH: Where it sits now, no.
4 It's a warehouse district. It is downtown, I
5 mean, but it's all relative how you look at it.

6 MR. GALATI: And the Avila Beach project
7 is actually in a community of Avila Beach?

8 MR. FRASCH: Yes, sir.

9 MR. GALATI: Dr. Fox, are you aware that
10 CURE was an intervenor in the La Paloma project?

11 DR. FOX: Yes.

12 MR. GALATI: Did you work on the La
13 Paloma project?

14 DR. FOX: No, I did not.

15 MR. GALATI: Are you familiar at all
16 with the La Paloma project?

17 DR. FOX: No, I'm not.

18 MR. GALATI: If I represented to you --
19 you cited it in some of your testimony -- if I
20 represented to you that it's three times larger
21 megawatt, would that refresh your memory?

22 DR. FOX: I really wasn't involved in
23 it. If it's cited in my testimony it would be an
24 example of another project that did something
25 similar, and I personally did not pull out that

1 cite. I did not work on the La Paloma project.

2 MR. GALATI: So are you aware whether or
3 not the La Paloma project incorporated soot
4 filters for construction?

5 DR. FOX: No, I don't know.

6 MR. GALATI: Would it surprise you to
7 find that they did not?

8 DR. FOX: No.

9 MR. GALATI: How about the Delta
10 project?

11 DR. FOX: I don't even know what that
12 is.

13 MR. GALATI: Are you familiar with the
14 Pittsburg project?

15 DR. FOX: Pittsburg ENRON, yes.

16 MR. GALATI: Did you work on that
17 project?

18 DR. FOX: No.

19 MR. GALATI: Do you know whether or not
20 on that project soot filters were used for
21 construction?

22 DR. FOX: No, I don't.

23 MR. GALATI: How about the Sutter
24 project?

25 DR. FOX: I did work on Sutter.

1 MR. GALATI: And did you recommend the
2 use of soot filters?

3 DR. FOX: I worked on it very briefly,
4 and I worked on the water issues. Didn't work on
5 the air issues.

6 MR. GALATI: Do you know whether or not
7 soot filters were recommended for that project?

8 DR. FOX: No, I don't.

9 MR. GALATI: Do you know whether the
10 projected PM10 emissions for any of those projects
11 were as high as a million pounds?

12 DR. FOX: Could you repeat that? I
13 didn't hear you.

14 MR. GALATI: You testified earlier that
15 there were projected PM10 emissions from
16 construction of the Sunrise project, I believe
17 that you went through a calculation and came up
18 with over a million pounds --

19 MS. POOLE: I object to that. That is
20 not what the witness testified to. Could you re-
21 ask the question, please.

22 MR. GALATI: Is there some -- okay, I'll
23 try to ask it again.

24 Did you testify earlier this morning
25 that in recalculating the PM10 emissions that you

1 came out that they were about a million pounds per
2 year?

3 DR. FOX: I testified this morning, if
4 you took your estimate, Sunrise's estimate of PM10
5 emissions and adjusted them by a factor of 59 to
6 account for three factors that were omitted from
7 the analysis, you would get over a million pounds
8 of PM10 emissions over the construction period,
9 which would be 15 months.

10 MR. GALATI: Okay, and in fact, that's
11 what you're advocating is what the PM10 emissions
12 would be for the Sunrise project over the 15-month
13 period?

14 DR. FOX: Yes.

15 MR. GALATI: Are you aware of any other
16 energy project where the projected emissions over
17 a 15-month period are over a million pounds?

18 DR. FOX: I can't, off the top of my
19 head as I sit here, point to anything. But many
20 of them have very large emissions in terms of tons
21 per year.

22 MR. GALATI: Thank you. If I may have
23 one moment.

24 (Pause.)

25 MR. GALATI: I have no further

1 questions.

2 HEARING OFFICER FAY: Thank you. Does
3 the staff have any cross-examination of this
4 panel?

5 MS. HOLMES: Not on construction
6 impacts.

7 HEARING OFFICER FAY: TANC?

8 MR. DeCUIR: No.

9 EXAMINATION

10 VICE CHAIRMAN ROHY: My question is on
11 the operation of soot filters, and perhaps the
12 gentlemen who are from the industry here could
13 answer.

14 I'd like to know whether they capture
15 soot, and if so, how do you dispose of it? Or do
16 they transform it into something, and if so, what
17 is it transformed into?

18 MR. GARCIA: Well, the trapped soot is
19 burned on the catalyst when it reaches 700 degrees
20 F. So it's burnt within the filter, itself. A
21 good technical answer on what that is turned into
22 I can't give you right off the top, but there's
23 not anything trapped or that needs to be disposed
24 of at a later time.

25 VICE CHAIRMAN ROHY: But you don't know

1 then whether the substances coming off the
2 catalyst are regulated or not regulated
3 substances, or those who might be considered bad?

4 MR. GARCIA: Let's see if we have that.
5 I don't want to give you a bad --

6 MR. FRASCH: The soot filter, itself, is
7 catalyzed. So when you're burning the trapped
8 particulate it's going across the catalyst at that
9 point, also. We're converting CO and hydrocarbons
10 over to, you know, inert, just like a standard CO
11 filter.

12 VICE CHAIRMAN ROHY: Well, I understand
13 CO will --

14 MR. FRASCH: Right.

15 VICE CHAIRMAN ROHY: -- go to CO2.

16 MR. FRASCH: Right.

17 VICE CHAIRMAN ROHY: Soot is primarily
18 carbon, but it has a lot of other VOCs attached to
19 it.

20 MR. FRASCH: Well, that's why we load it
21 with our -- it's patented loading, I mean precious
22 metals in there, proprietary.

23 VICE CHAIRMAN ROHY: I don't care what's
24 in it. I want to know what comes out of it.

25 MR. GARCIA: Well, I will get you -- I

1 will contact, and give you a good technical
2 response to that.

3 VICE CHAIRMAN ROHY: Thank you.

4 MS. POOLE: I do have two redirect if
5 the Committee's done?

6 REDIRECT EXAMINATION

7 BY MS. POOLE:

8 Q Dr. Fox, in your testimony you provide
9 an estimate of construction emissions that's
10 included in CURE's comments on the PSA, correct?

11 A Correct.

12 Q And you testified this morning to some
13 problems with the applicant's estimates of
14 construction emissions, and that if you correct
15 for those problems the applicant's estimate would
16 become over a million tons of PM10, correct?

17 A Correct.

18 MS. POOLE: Thank you.

19 (Pause.)

20 PRESIDING MEMBER MOORE: You know what,
21 we're going to take about a five-minute break. We
22 need to caucus here to try and figure out where we
23 are on time, so this is my call, it's on my
24 nickel, if you will, because I've just got to
25 understand how much more progress we can make

1 before tomorrow. Whether I need to plan to carry
2 stuff over. So, if you'll forgive us, we'll take
3 five minutes and we'll caucus right up here at the
4 dias.

5 MR. GALATI: If I could just make one
6 quick comment that might be relevant for your
7 caucusing --

8 PRESIDING MEMBER MOORE: As long as it
9 helps speed us along.

10 MR. GALATI: I only have about 20
11 minutes of rebuttal.

12 PRESIDING MEMBER MOORE: Twenty minutes?

13 MR. GALATI: Yes, for the panel.

14 PRESIDING MEMBER MOORE: What are we
15 allowed, three minutes? I don't know, you're
16 about seven times over the limit with that. Okay,
17 counselor.

18 MR. GALATI: Well, it's better than 59
19 times over the limit.

20 (Laughter.)

21 (Brief recess.)

22 PRESIDING MEMBER MOORE: Yes, as a
23 consequence I will try and get us through as much
24 of air quality as we can, and carry over to
25 tomorrow morning. But I note that my counsel says

1 that tomorrow morning we have a conference call
2 that we have to make with an expert in the east,
3 so we're going to have to be on biology when we do
4 that. So we may have to hop around a little bit.

5 Let me offer you this, because I'm
6 assuming that everyone is in the same position
7 basically that we are, and that is that when
8 you're making your presentations I will give you
9 the option of skipping what I've been asking for
10 all this time, which is a summary of the remarks.
11 We have those that are filed, so I'm okay to have
12 you skip over that if it's filed in enough detail.
13 That will save us a little bit of time.

14 And I'm going to ask you to just try and
15 constrain your direct questions to those areas
16 that really make a difference. I mean if you
17 think it's really important for the Committee to
18 understand the nature of some problem or question
19 that isn't getting addressed, then by all means,
20 go into it and make us aware of it.

21 But let's not beat this totally to
22 death. We've got a lot on the record at this
23 point, so I'm not asking you to skip any important
24 points, but I am asking you to compress as much as
25 you can.

1 And with that, I think we will go to the
2 DOC, then, right, Gary?

3 HEARING OFFICER FAY: Yes.

4 MS. POOLE: Can we talk about biology a
5 bit more? I'm trying to decide when I should have
6 my biology witness available.

7 PRESIDING MEMBER MOORE: Well, I'll tell
8 you what I would like to do, given the request
9 that was made for us to have that phone call in
10 the morning, what I'd like to do is suspend
11 whatever we're doing this afternoon and pick up
12 biology first thing in the morning.

13 So we'll just open it new.

14 MS. POOLE: Just for that conference
15 call, or do you want --

16 PRESIDING MEMBER MOORE: No, we'll go
17 all the way through, --

18 MS. POOLE: -- go through biology --

19 PRESIDING MEMBER MOORE: -- once we open
20 it up, we'll go all the way through it.

21 MS. POOLE: Okay.

22 HEARING OFFICER FAY: But we will begin
23 with staff's introduction of their testimony on
24 H2S impacts. That will lead the way for Dr.
25 Chilton's --

1 PRESIDING MEMBER MOORE: Right, we have
2 to put it in context.

3 MS. POOLE: Sure, right, I understand.

4 HEARING OFFICER FAY: And she will be
5 sworn and be available, I hope it was explained to
6 you, for cross-examination.

7 MS. POOLE: I just heard for the first
8 time today, but we understand that now. Thanks.

9 PRESIDING MEMBER MOORE: Our lines of
10 communication are not as clean as they could be,
11 I'm sorry about that.

12 Okay, so, Gary.

13 HEARING OFFICER FAY: Sure. Mr. Galati,
14 did you have something before we move to --

15 MR. GALATI: Yeah, I just wanted to be
16 able to do my quick, you know, keep it very brief,
17 rebuttal to the information that was brought in
18 that we didn't get a chance to respond to.

19 PRESIDING MEMBER MOORE: We told you
20 that we would allow that, so --

21 MR. GALATI: Thank you.

22 PRESIDING MEMBER MOORE: -- you have the
23 floor.

24 MR. GALATI: I've recalled Mr. Stein,
25 Ms. Fields and Mr. Srackangast.

1 Whereupon,

2 DAVID STEIN, PAULA FIELDS and ARNOLD SRACKANGAST
3 were recalled as witnesses herein and having been
4 previously duly sworn, were examined and testified
5 further as follows:

6 DIRECT EXAMINATION

7 BY MR. GALATI:

8 Q Mr. Stein, you heard the testimony of
9 Dr. Fox regarding the modeling?

10 A Yes, I did.

11 Q Could you briefly give us your comments
12 and opinions about it?

13 A Sure, I'd be happy to. I disagree with
14 CURE's characterization of the Sunrise modeling
15 and firmly stand behind the efficacy of that
16 modeling.

17 I think it's important to recognize that
18 the construction equipment that's going to be
19 utilized on this site is comprised of combustion
20 sources, or mostly combustion sources. And they
21 are the sole source of NOx.

22 Those combustion sources have stacks,
23 they have temperature, they have exit velocity,
24 they have plume rise. To perform a model that
25 fixes the release height at a specific height, and

1 not allowing that emission to rise as it would in
2 the atmosphere is a misrepresentation of what
3 actually occurs.

4 Now, there really is no surefire
5 absolutely 100 percent perfect way to conduct an
6 atmospheric modeling simulation that will be
7 accurate, totally accurate representation of what
8 happens during construction.

9 So there are a variety of ways to
10 approach this. And the method that we used is
11 just one of those ways. We believe it is
12 representative because it takes into account the
13 fact that these sources are primarily engines that
14 do have hot exhaust and will rise and disperse in
15 the atmosphere.

16 So, we disagree with CURE's
17 representation to the contrary and stand by the
18 modeling results that we provided.

19 BY MR. GALATI:

20 Q Ms. Fields, with respect to the emission
21 factors, you heard the testimony of Dr. Fox?

22 A Yes, I did.

23 Q Can you give us your comments and
24 opinions about it?

25 A Yes, I'd like to just address the three

1 points that CURE made with regard to the emission
2 factors used for fugitive dust whereby they
3 arrived at a multiplier of 59 to basically adjust
4 our emissions.

5 That is not appropriate for these
6 reasons. First of all, the emission factor that
7 we used came from the Midwest Research Institute
8 report which is the one that ARB cites in their
9 guidance document, the handout that you received.
10 Or, I'm not sure if you handed it out or not, but
11 you cited from it.

12 And the emission factors provided by MRI
13 in that report are .11 tons per acre per month as
14 an average emission factor. .42 is a worst case
15 emission factor that, in this case, Southcoast has
16 used.

17 So the .11 average emission factor is
18 appropriate for use at the Sunrise project. Not
19 only that, but ARB uses that emission factor as it
20 calculates emissions for the state. It's an
21 uncontrolled emission factor, and that's the main
22 point.

23 I'd like to read from this page from the
24 ARB guidance document. The MRI document lists
25 their average emission factors as uncontrolled, so

1 therefore it is appropriate for us to apply 50
2 percent to account for the effect of water control
3 on that emission factor.

4 I'd also like to reiterate from my
5 testimony earlier that 50 percent control is by no
6 means a total control efficiency that will be
7 achieved by compliance with AQC-1. AQC-1 will
8 provide a control efficiency substantially higher
9 than 50 percent.

10 And thirdly, Dr. Fox has suggested that
11 the emission factor be multiplied by 10 to account
12 for the fact of the effect of silt content being
13 higher at the site than what is in the MRI report.
14 The fact is the MRI emission factors are based
15 over a range of silt contents. 8.3 I believe she
16 cited as being the average, I don't have the
17 report in front of me, I can't tell you what the
18 range is, but the point is it's totally
19 inappropriate to just multiple the emission factor
20 by a factor ten to account for some unknown range
21 of silt.

22 Q And, Ms. Fields, with respect to the
23 proposed mitigation that you listed on page 9 and
24 10 of your testimony, did you hear Dr. Fox's
25 testimony about those mitigation measures?

1 A Yes, I did.

2 Q Do you have any opinions regarding them?

3 A Again, as I reiterated a moment ago,
4 these emission control measures go over and beyond
5 the 50 percent control efficiency that was applied
6 in our calculations.

7 Q Do you believe that those mitigation
8 measures that you propose there comply with
9 regulation 8?

10 A Certainly, they go beyond that.

11 MR. GALATI: I have no further
12 questions.

13 PRESIDING MEMBER MOORE: I have one,
14 counselor, and I'd direct it to Ms. Fields.

15 EXAMINATION

16 BY PRESIDING MEMBER MOORE:

17 Q Did you do original research at the site
18 with regard to the existing soils, the
19 concentration of silt at the site?

20 A No, sir, I didn't. I personally didn't.

21 PRESIDING MEMBER MOORE: I was going to
22 reserve the question about the siltation brought
23 up by Dr. Fox for the soils testimony, and it may
24 still be appropriate there, but let me just see if
25 anyone on your panel can give me an idea and I'll

1 ask the question again later if it doesn't come
2 up.

3 And that is it seems to me that in the
4 documents that I have read submitted to us there's
5 no information that I can readily identify that
6 gives me a background level of the amount of silt
7 that's in the soil.

8 It seems to me that it's probably not
9 intuitively obvious, but maybe close to it, that
10 if there is that high a concentration of silt in a
11 sandy soil that it's likely to be a fugitive
12 component of any windy day, which they have a few
13 in the valley down there.

14 And as a consequence I'm asking myself
15 what's the background component day-in and day-out
16 of particulate matter in the air just because the
17 soil is blowing away. And I've no reason to
18 dispute Dr. Fox's conclusion about the amount
19 of -- I think the soils report that I saw said a
20 loamy sand? I'm going back a ways whenever I read
21 it last, but that would be consistent with what
22 she quoted, as far as a high content of silt.
23 Which is minimal to be picked up and disbursed by
24 wind.

25 So, do we have anything to judge against

1 as a background component for the amount of stuff
2 that's in the air? I mean maybe this isn't
3 something that gets done generally, but we're
4 focusing on a lot of machinery, but in fact, the
5 impact of that machinery may be overwhelmed by, or
6 has a potential to be overwhelmed by the native
7 conditions. And I don't know the answer to that.
8 Does anyone on your panel know? No. Okay.

9 Well, I'll just serve notice that when
10 the soil material comes up I'd like to ask the
11 soil consultants, as well. It's a question that's
12 likely to repeat itself here in the coming months
13 with other projects coming up.

14 Thank you very much, counselor.

15 MR. GALATI: I've been notified over the
16 break that we have the opportunity to bring
17 somebody from Catalyst Exhaust that will be
18 available tomorrow if the Commission is so
19 interested, to rebut what Engelhard has said
20 today.

21 PRESIDING MEMBER MOORE: Happy to. I
22 think that would probably go right along with what
23 Dr. Rohy was asking for, we'll entertain that.

24 MR. GALATI: That person will be
25 available at 1:00.

1 PRESIDING MEMBER MOORE: Tomorrow's
2 likely to be a bit of a mix, so for everyone --

3 (Laughter.)

4 PRESIDING MEMBER MOORE: -- who expected
5 me to run a really rigid and conform to my own
6 rules, you know, I think that's kind of gone out
7 the window on this one. So, tomorrow's likely to
8 be a -- or pot-pourri. So, there you go.

9 Other questions, Commissioner Rohy?

10 VICE CHAIRMAN ROHY: I have nothing.

11 PRESIDING MEMBER MOORE: None.

12 HEARING OFFICER FAY: Is your panel
13 available?

14 MR. GALATI: Yes, they're available for
15 cross-examination.

16 HEARING OFFICER FAY: Ms. Holmes?

17 MS. HOLMES: I have no questions.

18 HEARING OFFICER FAY: Ms. Poole?

19 MS. POOLE: May I have just one minute,
20 please?

21 HEARING OFFICER FAY: Sure. We're going
22 to limit you to no more than the amount of time
23 that Mr. Galati took to deliver his direct.

24 MS. POOLE: That's fine.

25 (Pause.)

1 MS. POOLE: No questions.

2 PRESIDING MEMBER MOORE: Thank you.

3 HEARING OFFICER FAY: Thank you. Gold
4 star to Ms. Poole.

5 All right, what we'd like to do now is
6 have the air district present a representative and
7 introduce the final DOC into our record. Is there
8 a representative from the San Joaquin Valley
9 Unified Air Pollution Control District here?

10 MR. SADREDIN: Commissioners, my name is
11 Seyed Sadredin. I'm the Director of Permit
12 Services with San Joaquin Valley APCD.

13 With me I have Tom Goff, who's the
14 Manager of Permit Services in our Bakersfield
15 office. And John Gruber, Senior Engineer, who
16 worked on this project.

17 We have a brief introductory statement
18 for you regarding this project and introducing the
19 DOC. And then we'd be happy to address any
20 questions or any other issues that you want us to
21 address.

22 HEARING OFFICER FAY: Thank you. Could
23 we swear your panel? Anybody who will be
24 testifying, please take the oath.

25 //

1 Whereupon,

2 SEYED SADREDIN, THOMAS GOFF and JOHN GRUBER
3 were called as witnesses herein and after first
4 being duly sworn, testified as follows:

5 DIRECT TESTIMONY

6 MR. GRUBER: Hi. My name is John
7 Gruber. I'm the Engineer that processed the
8 application for the Sunrise project. I have to
9 apologize, I'm not very familiar with this hearing
10 procedure, but I would like to begin with a brief
11 overview of the application review process from
12 our end of it for the Sunrise project.

13 The CEC relied on the district to
14 perform its determination of compliance or DOC
15 review of the project in accordance with our rules
16 and regulations as required under section 5.2 of
17 our new source review rule.

18 Under that section of our -- and it's
19 our rule -- within 20 days of receiving an
20 application, the district is required to determine
21 whether the application is complete.

22 For the Sunrise project we received the
23 application on December 21st of 1998. We deemed
24 it incomplete on January 8, 1998 (sic). We wanted
25 more information, needed more information before

1 we could make a completeness determination.

2 They responded fairly quickly and on
3 February 5th of 1999 we deemed the application
4 complete.

5 In that completeness determination we
6 also notified them that the Sunrise Cogeneration
7 Facility would be considered part of Texaco's
8 heavy oil western stationary source.

9 Upon the district's completeness
10 determination we then reviewed the project in
11 accordance with our rules and regulations, and
12 only in accordance with our rules and regulations,
13 to determine compliance with those rules and
14 regulations.

15 And then on July 27th of 1999 the
16 district made the preliminary decision on the
17 project as required under section 5.2, and that
18 occurred within 180 days of the completeness
19 determination. And this began the 30-day public
20 comment period that is required by our NSR rule
21 for this type of project.

22 Our PDOC or preliminary determination of
23 compliance also noted that the requirements of
24 section 4.3.3 of our NSR rule had not been fully
25 satisfied by the application up to that point.

1 And under section 4.3.3, and I'd like to read that
2 section, or I can just paraphrase it.

3 It basically states that an owner/
4 operator of a new major source or Title 2
5 modification as defined in our NSR rule must
6 certify to the APCO's satisfaction, the APCO is
7 the air pollution control officer, that all other
8 major sources in the State of California under
9 common control or ownership, are either in
10 compliance or on a scheduled compliance with all
11 applicable emission standards or limitations.

12 And at the time of the PDOC we
13 determined that that had not -- that
14 determination, that certification had not been
15 made to the APCO's satisfaction.

16 The public comment period for the
17 project ended I believe August 28, 1999. And then
18 on August 30, 1999, our district's compliance
19 group, as well as our legal group, finalized the
20 compliance schedule or a settlement agreement with
21 Texaco, the parent company of the Sunrise
22 Cogeneration Power Company, and that effectively
23 brought those specific NOVs that have been alluded
24 to in our PDOC to -- at least brought them into a
25 compliance schedule, or schedule for compliance

1 would be applicable -- limitations and standards.

2 During the public comment period other
3 NOVs for other major stationary sources in the
4 State of California were brought to our attention.
5 And also the source was also subject to other NOVs
6 that were issued. And we felt compelled to
7 evaluate, or at least look into the status of
8 those NOVs that had been issued within our
9 district as well as throughout the State of
10 California.

11 On October 5th of 1999 the district
12 notified Sunrise that our completeness
13 determination, our February 5th completeness
14 determination was based on the validity of their
15 certification that had been submitted with their
16 application.

17 Because that certification was
18 determined to be insufficient at the time that we
19 went through preliminary notice, we notified
20 Sunrise that the statutory deadline had not been
21 passed. And the statutory deadline for taking
22 final action as required under our NSR rule states
23 that we are required to take final action within
24 240 days of an application being deemed complete.

25 On 11/18/99 the district made the

1 decision to go ahead and take final action, but
2 also noted that once again the application did not
3 fully satisfy the requirements of section 4.3.3.
4 And also our DOC, our final DOC identified
5 equipment in 18 specific NOVs that needed to be
6 either in compliance or on a schedule for
7 compliance before the requirements of section
8 4.3.3 would be satisfied.

9 On 11/24/99, or November 24th of 1999,
10 the district and Texaco finalized the settlement
11 agreement for 14 of those 18 NOVs that were
12 identified in the DOC. And in that settlement
13 agreement there was compliance scheduled for the
14 equipment that was associated with those NOVs.

15 Four of the other NOVs, four of the NOVs
16 that had been identified in the DOC were not
17 included in the compliance schedule because prior
18 to that settlement agreement our compliance
19 division had already determined that the equipment
20 that was the subject of those NOVs were already
21 back in compliance with applicable emission
22 standards limitations, and that's why those were
23 not -- there was no need to include those in the
24 compliance schedule.

25 And also effective the November 24, 1999

1 settlement agreement, which included the
2 compliance schedule for those NOVs, the district
3 notified the CEC that the requirement in the DOC
4 had been satisfied and that the DOC now served as
5 an equivalent to an authority to construct. Had
6 all the rights and privileges thereof, of an
7 authority to construct.

8 That's sort of a brief overview of the
9 timeline with respect to our processing of the
10 application for the Sunrise project.

11 I also wanted to mention that we
12 determined in our review of the project, with
13 regard to our rules and regulations, we determined
14 that the project satisfied all district rules and
15 requirements, all the applicable district rules
16 and requirements, including requirements for BACT,
17 as well as requirements for offsets, the
18 compliance certification. And also the project
19 satisfied the regulation for rule requirements,
20 including our district rule 4703, which is our --
21 rule requirement for stationary gas turbines.

22 Also, in closing I'd like to mention
23 that the amount of offsets provided more than
24 mitigate the emissions from the project. Thank
25 you.

1 HEARING OFFICER FAY: Did the other
2 panelists have something to say on direct?

3 MR. GOFF: Not at this point.

4 HEARING OFFICER FAY: Not at this point,
5 all right.

6 Mr. Gruber, and if you're not the one to
7 answer this, please refer me to some of the other
8 panelists. I have a few questions for you.

9 EXAMINATION

10 BY HEARING OFFICER FAY:

11 Q The ERCs that you have identified and
12 relied upon, and you can break this down if you
13 need to, can you tell me, are they real surplus,
14 permanent, quantifiable and enforceable?

15 A They were banked in accordance with our
16 district banking rule 2301 and that requires that
17 prior to banking emission reductions have to be
18 real surplus, enforceable, quantifiable -- did I
19 say surplus? did I say --

20 (Laughter.)

21 MR. GRUBER: There's five criteria, that
22 they have to satisfy those five criteria in our
23 banking rule. And they did at the time of
24 banking.

25 HEARING OFFICER FAY: Okay. And I also

1 would like to ask you, have you identified that
2 complete emission offsets for the proposed
3 facility are identified and will be obtained by
4 the applicant prior to the anticipated licensing
5 of this project by the Commission?

6 MR. GRUBER: The applications to
7 transfer the credits from ERA, which the credits
8 for NOx and VOC, have already been transferred to
9 Sunrise from ERA Energy. And we do have the
10 application, I'm actually processing the
11 application to transfer the PM10 and SOx credits
12 from Texaco to Sunrise.

13 HEARING OFFICER FAY: So have complete
14 ERCs been identified?

15 MR. GRUBER: Yeah.

16 HEARING OFFICER FAY: And you can
17 testify that you anticipate they will all be
18 transferred prior to licensing?

19 MR. GRUBER: NOx and VOC credits have
20 been transferred. The PM10 and SOx credits, once
21 we get through this process this week, I should be
22 able to finish it pretty quickly.

23 HEARING OFFICER FAY: And that would be
24 all the required ERCs?

25 MR. GRUBER: Correct.

1 HEARING OFFICER FAY: All right, thank
2 you.

3 I would like to identify your final
4 determination of compliance for the record,
5 introduce it at this time, if there's no
6 objection, and identify it as exhibit 59.

7 MS. HOLMES: Hearing Officer Fay, --

8 HEARING OFFICER FAY: Yes.

9 MS. HOLMES: -- if I could, the way that
10 that document was filed and docketed with the
11 Energy Commission, I'm not sure that they want to
12 receive the same copy we did. It had a number of
13 letters attached to the front of it, which is
14 response to comments from all of the parties.

15 I just would like to make sure that
16 that's the document that gets the exhibit number,
17 and is introduced into evidence. Because I think
18 the response to comments are important, as well.

19 HEARING OFFICER FAY: The attachments
20 are the district's responses to comments?

21 MS. HOLMES: The way the document came
22 to the Energy Commission I don't know if it was
23 submitted to other parties this way, the way it
24 was docketed. Is that there's a series of letters
25 attached to the front of the DOC. That includes

1 the response to comments of all the parties who
2 commented on it.

3 I don't know whether the other parties
4 who commented received all of the letters. I know
5 that the staff did. I just want to make sure that
6 what goes into the record is what was docketed at
7 the Energy Commission because it has all of the
8 response to comments that were submitted by the
9 district. And that's at the front of the DOC. It
10 all came as one package.

11 HEARING OFFICER FAY: I have no problem
12 with that. I'm not sure what the cover
13 identification would be, but --

14 MS. HOLMES: The way it was --

15 HEARING OFFICER FAY: -- if you give us
16 the date --

17 MS. HOLMES: Yeah, the way it came to
18 the Energy Commission was that the cover was, the
19 first letter was a letter to Mr. Therkelson from
20 the San Joaquin Valley Air Pollution Control
21 District dated November 18th.

22 And then behind it are a series of other
23 letters also dated November 18th to other parties
24 who commented on the DOC.

25 And then attached to those letters is

1 the DOC, itself.

2 So there's a letter to the EPA and to
3 ARB and to CURE and to Sunrise, I believe.

4 HEARING OFFICER FAY: That includes the
5 document entitled final determination of
6 compliance.

7 MS. HOLMES: Right, it's about half way
8 through the filing.

9 MR. GRUBER: We responded to all the
10 comments that were made during the public comment
11 period. And in our response to those comments we
12 attached the DOC.

13 MS. HOLMES: I just wanted to make sure
14 that that's what went into the record.

15 HEARING OFFICER FAY: No, I appreciate
16 that. And so that packet, as docketed on November
17 18th, will be exhibit 59.

18 MS. HOLMES: Thank you.

19 HEARING OFFICER FAY: All right. Is the
20 panel available for questions?

21 MR. GRUBER: Yes.

22 HEARING OFFICER FAY: All right. Mr.
23 Galati?

24 //

25 //

1 CROSS-EXAMINATION

2 BY MR. GALATI:

3 Q Probably address this to Mr. Gruber.
4 Mr. Gruber, the DOC has daily limits, emission
5 limits, correct?

6 MR. GRUBER: Correct.

7 MR. GALATI: And it also has hourly
8 emission limits?

9 MR. GRUBER: Correct.

10 MR. GALATI: It also has emission limits
11 during start-up and shut-down?

12 MR. GRUBER: Specific limits for start-
13 up and shut-down?

14 MR. GALATI: Or, let me take a step
15 back. Has specific emission limits for a day when
16 a start-up or shut-down occurs?

17 MR. GRUBER: Correct.

18 MR. GALATI: Also has an annual emission
19 limit?

20 MR. GRUBER: Correct.

21 MR. GALATI: And the offsets were
22 calculated based on the annual emission limit,
23 correct?

24 MR. GRUBER: Right.

25 MR. GALATI: Do you believe that the

1 annual emission limit sets the maximum potential
2 to emit under your rules?

3 MR. GRUBER: With regards to the amount
4 of offsets provided, yes.

5 MR. GALATI: Thank you. I want to draw
6 your attention to a letter that was received
7 recently from EPA commenting on the use of a
8 particular PM10 credit. Are you familiar with
9 that letter?

10 MR. GRUBER: Yes, we are.

11 MR. GALATI: Okay. And I believe that
12 that letter was -- identify it for the record --

13 MS. POOLE: I don't believe that letter
14 has been identified, but it should be.

15 MR. GALATI: Oh, I apologize, that
16 letter had not been identified. This is a letter
17 dated January 5th, and I guess I'll ask Mr.
18 Sadredin to identify that letter.

19 MR. SADREDIN: That's a letter to
20 myself, Seyed Sadredin, from Matt Haber, Chief of
21 Permits Office, from the EPA, and it's dated
22 January 5th, regarding PM10 emission reduction
23 credits.

24 MS. POOLE: May we have that letter
25 identified for the record.

1 HEARING OFFICER FAY: Yes, we can mark
2 that for exhibit. Would you identify it?

3 MR. GALATI: Yes, it's January 5, 1999,
4 a letter from the USEPA, Matt Haber, Chief,
5 Permits Office, to Mr. Seyed Sadredin, entitled
6 District Response to EPA Comments on Sunrise
7 Cogeneration PM10 Emission Reduction Credits.

8 HEARING OFFICER FAY: Okay, that will be
9 marked for identification as exhibit 60. Do you
10 have a copy to share with counsel?

11 MR. GALATI: No, I don't have a copy.
12 Actually, I think I can get one.

13 HEARING OFFICER FAY: Well, subject to
14 objection, why don't you go ahead and ask your
15 questions.

16 MR. GALATI: Okay.

17 HEARING OFFICER FAY: Has this been
18 docketed, Mr. Galati?

19 MR. GALATI: I'm not sure if that one
20 has been docketed, because it was just recently
21 received.

22 HEARING OFFICER FAY: Would you be sure
23 that --

24 MR. GALATI: Yes.

25 HEARING OFFICER FAY: -- the letter is

1 docketed, please.

2 BY MR. GALATI:

3 Q That letter addressed the PM10
4 certificate, correct? Mr. Gruber, that letter
5 addressed the EPA's comments on the use of a
6 particular PM10 emission reduction credit, is that
7 correct?

8 MR. GRUBER: Yes, it did.

9 MR. GALATI: In that letter EPA cited a
10 policy not any law or regulation, with respect to
11 the use of that PM10 credit, is that correct?

12 MR. GRUBER: Yes, they did.

13 MR. GALATI: And, in fact, EPA commented
14 that there was a problem with that PM10 credit?

15 MR. GRUBER: Yes, they did.

16 MR. GALATI: Can you briefly summarize
17 what their comments were?

18 MR. GRUBER: Well, their letter
19 basically states that that ERC certificate is not
20 included on our list of pre-1990 ERCs as future
21 emissions growth, and also was not included in the
22 emissions inventory because of those reasons, it
23 is not a valid ERC banking certificate.

24 And we would argue that really this is
25 essentially a misunderstanding between the EPA and

1 us. This specific ERC is identified in our PM10
2 attainment demonstration plan, in appendix C of
3 that plan, and those older ERCs are included in
4 the projected growth.

5 And if you go to the second paragraph,
6 the EPA letter pretty much says that the district
7 could show that the total quantity of pre-1990s, I
8 think they mean the year, ERCs was included as a
9 portion of the growth factor in the plan.

10 Well, that happened. We could have done
11 a better job of explaining how this specific ERC
12 was included in our PM10 demonstration plan, and
13 how it is accounted for in the projected growth
14 estimates. For LaPaloma, quite a few of the PM10
15 credits used for the LaPaloma project fall into
16 the same category. They're pre-1993 ERCs that are
17 included in appendix C. They are accounted for in
18 our demonstration plan.

19 And EPA has not had a problem with that
20 approach in the past. And so, I think we just
21 need to do a better job of explaining how this ERC
22 is accounted for.

23 MR. GALATI: And, in fact, this letter
24 represents a long-standing dialogue between the
25 district and EPA regarding the use of pre-1990

1 ERCs, correct?

2 MR. GRUBER: That's my understanding.

3 MR. GALATI: And in the last ten years
4 has EPA enforced on any project in your district
5 due to inadequate offsets?

6 MR. SADREDIN: Counsel, if I could
7 respond to that, if you don't mind, since the last
8 ten years I'm the one who's been working with EPA
9 on that issue.

10 Basically we've had a long disagreement
11 with EPA over the last ten years where they tried
12 to enforce their version of some policies, and the
13 State of California has actually been unified in
14 opposing EPA on these issues.

15 ARB, the California air pollution
16 control officers, we have all taken issue with
17 what EPA does. As you might know, they've never
18 taken an enforcement action on any permits that
19 we've issued, saying that these credits, or pre-
20 1990 credits were not valid.

21 And more specifically, for this
22 particular certificate, for PM10, in our plan
23 we've identified a certain amount of growth, part
24 of which comes from these ERCs, assuming all these
25 ERCs contribute to the -- allow for the new

1 growth.

2 So this particular credit has been
3 identified and has been -- it is contained within
4 the growth. In fact, we've shown more growth than
5 these ERCs can handle. So our plan is adequate.

6 And in the past, not only for PM10, but
7 for NOx and VOCs, EPA has accepted the same
8 approach where we've included the ERC portion
9 within the growth.

10 And, in our opinion, again, it's a minor
11 misunderstanding here that we could easily
12 correct.

13 MR. GALATI: Okay, so the effect of this
14 letter doesn't change your final determination
15 that the project would be in compliance with all
16 district rules and regulations, correct?

17 MR. SADREDIN: There is nothing in this
18 letter, even on the surface of it, that says the
19 ERCs did not comply with our rules and
20 regulations. There is no question in our mind
21 that all the ERCs used for this project fully
22 comply with what is required in our rule.

23 Here, EPA's saying one of their policies
24 might not have been fully satisfied. But even
25 with that, even though we don't agree with the

1 policy, we still think we comply with it.

2 MR. GALATI: Okay, thank you. I have no
3 further questions.

4 HEARING OFFICER FAY: Staff.

5 MS. HOLMES: I have one question. But
6 before I begin I'd like to note that there's now
7 copies of what's been identified as exhibit 60 on
8 the back table for people who don't have the EPA
9 letter yet.

10 I have just one question regarding the
11 discussion that was held earlier in the day about
12 transport.

13 CROSS-EXAMINATION

14 BY MS. HOLMES:

15 Q Were you here when the representative
16 from the San Luis Obispo District testified?

17 MR. SADREDIN: Yes.

18 MS. HOLMES: And, are there any rules or
19 any process in place that the San Joaquin District
20 uses in processing this kind of an application
21 that addresses the potential for transport from
22 the San Joaquin District to downwind districts?

23 MR. SADREDIN: Yes.

24 MS. HOLMES: Could you please explain
25 what those are?

1 MR. SADREDIN: Under the California
2 Clean Air Act and the California Code of
3 Regulations, if a district is identified as
4 contributing to another area in a significant way,
5 they have to basically meet two requirements.

6 One is that they have to make sure they
7 have a plan that implements best available
8 retrofit control measures for existing sources.
9 We've had that in place for a number of years.

10 Also, under the transport regulations,
11 your new source review program has to have a
12 certain threshold for offsets and for BACT that is
13 sufficient in ARB's view to address any downwind
14 areas that are impacted by you.

15 This is not a new issue to us as far as
16 impacting other districts. We have already been
17 determined by ARB to impact Mojave and another of
18 other districts, and the ARB has ruled that our
19 plan is sufficient and also our new source review
20 rule which addresses the emissions from new
21 sources is sufficient to address that.

22 So basically BACT and an appropriate new
23 source review rule are required, and we have both
24 of those in place.

25 MS. HOLMES: Thank you, that was my only

1 question.

2 HEARING OFFICER FAY: Ms. Poole?

3 CROSS-EXAMINATION

4 BY MS. POOLE:

5 Q Mr. Gruber, you mentioned in your
6 testimony that this PM10 ERC which is discussed in
7 EPA's letter is included in I believe you said
8 appendix C, the district's PM10 attainment --

9 MR. GRUBER: Containment demonstration
10 plan.

11 MS. POOLE: What's the year of that
12 plan?

13 MR. GRUBER: You mean the latest version
14 of that plan?

15 MS. POOLE: Whatever one you're
16 referring to here, when you say this was
17 identified.

18 MR. GRUBER: May 1997, I believe.
19 Either May 1997 or September 1997.

20 MS. POOLE: 1997?

21 MR. GRUBER: Right.

22 MS. POOLE: And this ERC is specifically
23 listed in appendix C?

24 MR. GRUBER: Yes, it is.

25 MS. POOLE: As growth?

1 MR. GRUBER: It's listed, it's
2 identified as one of the pre-1990 ERCs the --
3 well, I guess I should defer to Seyed as far as
4 explaining how we account for these years.

5 MR. SADREDIN: Basically what EPA is
6 interested in to make sure that your baseline
7 emissions and your future projected emissions
8 already account for these ERCs, so you don't
9 double-dip into these reductions, taking credit
10 towards attainment and also using them for
11 credits.

12 What we've done in our plan is we have
13 for each source category that we have, we've
14 identified a certain amount of growth. And then
15 we've also said these ERCs that could be used to
16 accommodate that growth.

17 We have not put two separate numbers,
18 one for ERCs and one for the growth. We've lumped
19 them all together. The growth number includes the
20 ERCs. And it's much higher than the amount of
21 ERCs that is available. So that is what needs to
22 be explained again to EPA, which we had done
23 previously for NOx and VOC credits. And we had no
24 problems with that approach. We just need to make
25 sure we communicate again further with EPA to

1 address that. That that particular ERC is in the
2 plan, it's just they need to know that the
3 contribution from that is included in the growth
4 projections in the plan.

5 MS. POOLE: Just so I'm clear on where
6 this confusion lies. Is the PM10 certificate
7 number referenced here the one that's identified
8 in appendix C?

9 MR. SADREDIN: Yes.

10 MS. POOLE: Okay, that hasn't changed.

11 MR. SADREDIN: The confusion is, again,
12 that there were two ways of doing this. We could
13 have had a growth number on its own without
14 relation to ERCs, have one number. And then have
15 the ERCs as a separate number. And then you add
16 the total to get your growth. That is in the
17 plan.

18 What we've done is we've lumped the two
19 numbers together. We've shown one growth
20 component because they're really related to each
21 other. If you're going to use the ERCs to achieve
22 growth, it doesn't make sense to separate them.
23 You don't get separate growth in addition to the
24 ERCs.

25 So it's lumped together as far as the

1 emission numbers in the plan, but the specific
2 ERCs and a number of other ones are listed in the
3 plan separately.

4 MS. POOLE: Okay. I think this is a
5 question for Mr. Gruber. The offset calculation
6 that you made in the preliminary and final
7 determination of compliance, it's based on the
8 project's operational emissions, correct?

9 MR. GRUBER: Yes.

10 MS. POOLE: And if you look at the
11 numbers, the emission estimates versus the total
12 quantity of ERCs that will be retired, they don't
13 match.

14 And as I understand it, that's for two
15 reasons. One is because some of those ERCs come
16 from beyond a certain distance from the project,
17 and so there's a higher ratio required to offset
18 the project emissions, is that right?

19 MR. GRUBER: That's correct.

20 MS. POOLE: And the second reason is
21 because this project is treated as part of
22 Texaco's major stationary source down there, the
23 project was required to bring the PM10 emission
24 balance down to zero as a result of this project,
25 is that right?

1 MR. GRUBER: For PM10, if the NSR
2 balance is less than the offset threshold and
3 there is a modification that causes PM10 NSR
4 balance to go above the offset threshold, they
5 have to offset not only their emissions, but also
6 PM10 emissions that were already reflected in the
7 PM10 in the NSR balance. So, yes.

8 MS. POOLE: And those PM10 emissions
9 that were already reflected in the NSR balance are
10 for emissions that have occurred?

11 MR. GRUBER: For increases to the
12 stationary source.

13 MS. POOLE: Okay. And there's nothing
14 else in that offset calculation that would
15 affect -- that's how you reached the final number,
16 looking at those three different things, correct?

17 MR. GRUBER: Well, could you repeat the
18 question? I'm not quite sure what you're getting
19 at.

20 MS. POOLE: Well, I'm just trying to
21 clarify how you calculated the total offset
22 quantity for this project. And I'm asking you --

23 MR. GRUBER: Oh, you mean for PM10,
24 specifically?

25 MS. POOLE: No, for total. And I'm

1 asking you if that was based on the project's
2 operational emissions, the offset ratios
3 incorporated in district rules, and the NSR
4 balance requirement?

5 MR. GRUBER: Yes.

6 MS. POOLE: Thank you.

7 MR. SADREDIN: Commissioner, can I add
8 something to that, what John just --

9 PRESIDING MEMBER MOORE: Yes.

10 MR. SADREDIN: I think it's important to
11 note that any permit condition that limits the
12 operational limits or the emissions that could
13 emit from the plant is also included and
14 calculated in the quantity of emissions.

15 So by having the yearly emission limit
16 on the permit, that also goes into the calculation
17 for offsets. And that is really what establishes
18 how much offsets you need on a yearly basis
19 pursuant to our new source review rule.

20 Not your daily emissions, or not any
21 abnormal conditions that you could have during the
22 start-up and during short periods of time. If you
23 can, over the length of the year, agree to a
24 certain emission limit that is enforceable and is
25 achievable, that also -- that is really the

1 bottomline as to how much offsets you need. What
2 your permit allows you to do.

3 MS. POOLE: Construction emissions are
4 not included in that offset calculation, correct?

5 MR. SADREDIN: Pursuant to our new
6 source review rule, you're correct, yes. Although
7 one could argue that these credits are already in
8 place and they've taken them -- the reductions
9 have already been made.

10 So during construction period you don't
11 have the facility emissions which are much higher
12 than the construction emissions. So in a way
13 you're taking care of the construction emissions
14 by not having the facility emissions during the
15 construction. So in some ways they are taken care
16 of.

17 MS. POOLE: You did not require
18 additional offsets based on construction
19 emissions, correct?

20 MR. SADREDIN: We're not required to do
21 that, right. But I was just saying, in reality,
22 in terms of air quality impact, since the facility
23 is not constructed yet, that the reductions have
24 already been made.

25 You could argue that they more than

1 offset the construction emissions.

2 MS. POOLE: Thank you. Have you seen
3 CURE's testimony filed in this case on January
4 3rd?

5 MR. SADREDIN: The one that you filed
6 with CEC or the ones that you've sent to us?

7 MS. POOLE: With the Energy Commission.
8 Specifically, there is an attachment to that a
9 list of NOV's which the district supplied to us on
10 December 29.

11 MR. SADREDIN: Yes.

12 MS. POOLE: I have here the notices
13 which make up many of the things identified on
14 that list.

15 (Pause.)

16 HEARING OFFICER FAY: Ms. Poole, where
17 is this line of questioning going?

18 MS. POOLE: I'm trying to have the
19 district explain that attachment to CURE's
20 testimony, and what that NOV list signifies.

21 PRESIDING MEMBER MOORE: I thought the
22 NOV listing was pretty clear as to what it was.
23 Aren't you really interested in what --

24 MS. POOLE: Well, the NOV list missed --
25 excludes some information about specifically when

1 the violations occurred. And I would like the
2 district to explain that.

3 PRESIDING MEMBER MOORE: All of them?
4 Or do you want another letter to come in or
5 something? You're going to quiz them on every one
6 of those?

7 MS. POOLE: I don't need to do that.

8 PRESIDING MEMBER MOORE: Well, I'm not
9 sure how much in depth you want to go to. Is
10 there a category missing?

11 MS. POOLE: Well, perhaps we should do
12 this this way. I can mark this as an exhibit, and
13 we can have the district explain one of these to
14 us, and then --

15 PRESIDING MEMBER MOORE: Well, fine,
16 let's get a sample. I mean if there's a column
17 missing on the data, then let's explore it and
18 find out what it means. Why don't you use a
19 sample.

20 You just happen to have 200 extra copies
21 today, right?

22 MS. POOLE: Came prepared.

23 This first one of these notices, if
24 you'll take a look at that with me, it's marked
25 number 009502. What date did this violation occur

1 based on this notice?

2 MR. SADREDIN: Just to answer your
3 question fully, I need to explain how our notice
4 of violation process works.

5 If one of our inspectors go out to the
6 facility and they encounter something that
7 possibly could be a violation, and they make a
8 note of that.

9 So, in this case, on --

10 MS. POOLE: Actually, Mr. Sadredin, I'm
11 just trying to figure out if this notice indicates
12 that a violation occurred on November 11th, is
13 that correct?

14 MR. SADREDIN: It is possible that we --

15 MS. POOLE: The district --

16 MR. SADREDIN: -- we did not make --

17 MS. POOLE: -- identified this violation
18 on November 11th?

19 MR. SADREDIN: No, we did not identify
20 the violation on November 11th. On November 11th
21 we thought there might be a problem. The date
22 that the NOV is issued, which is December 21st, is
23 when the district made a determination that the
24 violation did exist.

25 MS. POOLE: Well, your inspector

1 determined on November 11th that the equipment was
2 not in compliance with the district's rules?

3 PRESIDING MEMBER MOORE: I'm getting
4 confused, as well. You can't have something occur
5 on the day that you finally write it up, either, I
6 mean unless we're in time travel, but Carl Sagan's
7 not here to explain that to me.

8 So, either I'm missing something or
9 sometime on or before 11/11 something that caught
10 someone's notice happened, am I correct?

11 MR. SADREDIN: You're correct, but we
12 did not make a final determination that that was,
13 in fact, a violation that we could deal with in a
14 permitting context, which is --

15 PRESIDING MEMBER MOORE: Right, but when
16 you finally make a determination that something is
17 a violation, the violation citation --

18 MR. SADREDIN: Right.

19 PRESIDING MEMBER MOORE: -- is the
20 reference point noted in this document, right, --

21 MR. SADREDIN: Right, on 12 --

22 PRESIDING MEMBER MOORE: -- 11/11?

23 MR. SADREDIN: -- on 12/21 we determined
24 that a violation did exist back in November when
25 we first noticed the problem.

1 PRESIDING MEMBER MOORE: Does that
2 answer your question, Ms. Poole?

3 MS. POOLE: So this equipment was out of
4 compliance on November 11th?

5 MR. SADREDIN: As we found out in
6 December, yes.

7 MS. POOLE: And each of these, the date
8 of the occurrence location in each of these
9 indicates the date the equipment was out of
10 compliance, correct?

11 MR. SADREDIN: Not in all cases. I have
12 a more complete handout that I could give you
13 where we've looked at all of these violations,
14 where it could tell you when the violation was
15 first detected, and how long the investigation
16 took, and when the investigation was complete.

17 In some cases we said you're in
18 violation, and the violation is retroactive. In
19 some cases, the violation did not really exist.

20 So, if you want, I can --

21 MS. POOLE: Actually, Mr. Sadredin, the
22 exhibit, which we've already attached, which you
23 haven't seen, indicates whether the violation is
24 pending or not. So that's not my concern.

25 I am just trying to establish here when

1 the equipment was out of compliance.

2 MR. SADREDIN: Okay.

3 MS. POOLE: And that's in the occurrence
4 location date, correct?

5 MR. SADREDIN: Right.

6 MS. POOLE: Thank you.

7 HEARING OFFICER FAY: And, Ms. Poole,
8 could you identify the package you passed out so
9 we can mark it for exhibit?

10 MS. POOLE: Yes, notices of violation
11 from the San Joaquin Valley Unified Air Pollution
12 Control District.

13 HEARING OFFICER FAY: And it's a
14 collection of perhaps two dozen notices of
15 violations?

16 MS. POOLE: I believe that's about
17 right. I haven't actually counted.

18 HEARING OFFICER FAY: All right. And
19 the first one is against Texaco, and is dated
20 11/11/99. And we'll mark that exhibit 61.

21 Any further questions?

22 MS. POOLE: No further questions.

23 HEARING OFFICER FAY: Does TANC have any
24 questions of the air district?

25 MR. DeCUIR: No.

1 HEARING OFFICER FAY: All right. Mr.
2 Galati.

3 MR. GALATI: An issue was raised on
4 cross-examination and I'd like to also ask the
5 district about it.

6 HEARING OFFICER FAY: All right.

7 RECROSS-EXAMINATION

8 BY MR. GALATI:

9 Q Mr. Sadredin, with respect to your
10 determination of compliance, your rule, does it
11 say specifically has to be in violation of a
12 standard, or I believe Mr. Gruber actually
13 testified to what the rule says, or on a schedule
14 of compliance?

15 MR. SADREDIN: Yeah, the compliance
16 certification is only required for emissions
17 violations, not procedural violations, for
18 instance, failure to get a permit which some of
19 these violations, if you actually look at them,
20 they're procedural things that the facility did
21 not comply at the time.

22 MR. GALATI: Would any of these
23 violations, if you, subsequent to your DOC, or
24 subsequent to the settlement agreement, would
25 they, in your opinion, invalidate that they were

1 in compliance, or scheduled compliance to the
2 APCO's satisfaction at the time you issued the
3 DOC?

4 MR. SADREDIN: Right. I think the
5 critical part to look at, under our new source
6 review rule which imposes this certification
7 requirement, is section 2.0 applicability.

8 And in that section it says the sources
9 responsible for showing compliance with various
10 requirements in this rule as of the date the
11 application is deemed complete.

12 Now, in November when we finally issued
13 the letter to EPA, the certification had been made
14 to the satisfaction of the APCO, and at that point
15 the cutoff date was established as reflected on
16 the DOC by identifying the NOV's that were still
17 open.

18 MR. GALATI: If there was a subsequent
19 determination by the APCO that there was a
20 violation that dated back, that would not, in your
21 opinion, invalidate --

22 MR. SADREDIN: Right, --

23 MR. GALATI: -- the original finding?

24 MR. SADREDIN: Right. In our view we
25 could not hold the permit because we're

1 investigating some matters which may turn out one
2 way or another at the end of the investigation.

3 MR. GALATI: Thank you. No further
4 questions.

5 MS. POOLE: I have one recross.

6 (Pause.)

7 MR. GALATI: I apologize.

8 HEARING OFFICER FAY: Go ahead.

9 MR. GALATI: I have just thought of
10 another question.

11 (Laughter.)

12 MR. GALATI: Mr. Sadredin, I believe
13 that you said that if there was an emission
14 limitation violation would that be considered to
15 be an ongoing compliance problem?

16 MR. SADREDIN: Yeah, that's a key point.
17 You might have had a violation during a given time
18 period, but if the violation was -- let's say you
19 had a leak in a particular component that has now
20 been corrected, but the district still has to
21 issue the NOV, and resolve the matter through the
22 mutual settlement process which would take months
23 and so forth.

24 You could not argue in all circumstances
25 that because a violation was detected at some past

1 date that it is still ongoing.

2 So, some of these violations were
3 temporary in nature and the violation status did
4 not exist.

5 MR. GALATI: Thank you.

6 HEARING OFFICER FAY: Staff, any
7 recross?

8 MS. HOLMES: No.

9 HEARING OFFICER FAY: Ms. Poole.

10 RECROSS-EXAMINATION

11 BY MS. POOLE:

12 Q Mr. Sadredin, do the district's rules
13 require facilities that meet certain criteria to
14 obtain permits?

15 MR. SADREDIN: Well, the permit
16 requirement is based on the size and the type of
17 activity that you engage in. So, I can't just say
18 in general we require permits for anything that is
19 subject to requirement.

20 There are many facilities that are
21 subject to our prohibitory rules and requirements,
22 but they don't require permits.

23 MS. POOLE: Thank you.

24 HEARING OFFICER FAY: Is that all? All
25 right. All right, thank you very much.

1 We've already crossed the threshold of
2 changing our organization here. Out of deference
3 to the witnesses from Modesto, we'd like to move
4 to TANC's testimony now, and let them present that
5 and then they'll be done.

6 MR. DeCUIR: Thank you very much,
7 members of the Committee. The Transmission Agency
8 has offered the prefiled testimony of Mr. Gregory
9 E. Salyer, who's behind me. And we will sit him
10 next to the reporter, if that's all right.

11 HEARING OFFICER FAY: Are you
12 comfortable using the podium, Mr. DeCuir?

13 MR. DeCUIR: Sure, I'm fine.

14 HEARING OFFICER FAY: Otherwise we can
15 make space for you down there. Just the fact that
16 the applicant has moved in doesn't mean they get
17 to stay there.

18 MR. DeCUIR: We'll be fine. If Mr.
19 Salyer, you can sit there, I think we'll do just
20 okay.

21 HEARING OFFICER FAY: Could you please
22 swear the witness?
23 Whereupon,

24 GREGORY E. SALYER
25 was called as a witness herein and after first

1 being duly sworn, was examined and testified as
2 follows:

3 DIRECT EXAMINATION

4 BY MR. DeCUIR:

5 Q Would you please state your name for the
6 record?

7 A My name is Gregory E. Salyer.

8 Q Mr. Salyer, your business address and
9 position with your organization?

10 A My business address is 1231 - 11th
11 Street, Modesto, California 95352. And my
12 position is Generation Manager.

13 Q Thank you. You prepared testimony which
14 I have identified as having been prefiled.

15 MR. DeCUIR: I think next in order it
16 would be identified as exhibit 61, Mr. Fay?

17 HEARING OFFICER FAY: No, that would be
18 exhibit 62.

19 MR. DeCUIR: 62.

20 BY MR. DeCUIR:

21 Q The testimony is entitled, testimony of
22 Gregory E. Salyer of Modesto Irrigation District,
23 regarding cumulative air quality impacts, and it's
24 dated January 3, 2000.

25 Mr. Salyer, did you have any changes or

1 additions or corrections to make to the testimony
2 that you signed on the 3rd of January?

3 A No, I do not.

4 Q And as you sit there, is this testimony
5 true and correct to the best of your knowledge and
6 belief, as you've sworn under oath?

7 A Yes, it is.

8 Q I understand that your professional
9 rÇsumÇ is attached to your testimony, and it
10 indicates that you have a bachelor of science
11 degree in electrical engineering from California
12 State University Sacramento, and a masters in
13 science and electrical power engineering from the
14 University of Southern California. And that
15 you've worked through your career and risen to the
16 position of the Manager of Generation, the
17 Generation Manager at MID, is that correct?

18 A That is correct.

19 MR. DeCUIR: Will the staff and parties
20 stipulate to Mr. Salyer's expertise to offer this
21 testimony as an expert?

22 MR. GALATI: Yes.

23 MS. HOLMES: Yes.

24 MR. DeCUIR: Thank you very much for the
25 stipulation.

1 BY MR. DeCUIR:

2 Q Mr. Salyer, would you briefly summarize
3 the testimony that you offer, which as it stands,
4 does go on at some length up to 14 pages. If you
5 could summarize it for the Committee, please?

6 A Yes, sir. TANC has 300 megawatts of
7 firm bidirectional capacity on path 15 between
8 Midway and the COTP.

9 MR. GRATTAN: Excuse me, Mr. Salyer, I
10 have a procedural point before we get into the
11 testimony, and if you'll indulge me before the
12 testimony is actually given here.

13 I looked at Mr. Salyer's testimony and I
14 believe that pages 1 through page 10 are basically
15 testimony on transmission system engineering. And
16 the record was closed on transmission system
17 engineering. Mr. DeCuir did put on another
18 witness, Mr. Larson. And I don't believe we
19 should reopen the record to hear this.

20 I'm more than willing to accept the
21 portion of the testimony which relates to how Mr.
22 Salyer's decisions as a generation manager for
23 Modesto Irrigation District may affect Valley air
24 quality. But the actual transmission system
25 engineering has been given.

1 PRESIDING MEMBER MOORE: Counselor, you
2 are correct. I agree with you. And can we take
3 that portion that follows that, and then we can
4 have this filed as information. I mean, can't we?

5 MR. DeCUIR: Oh, I'm sure Mr. --

6 PRESIDING MEMBER MOORE: In other words,
7 especially since it's already in.

8 MR. DeCUIR: Commissioner Moore, if I
9 could respond to you. I'm sure that Mr. Salyer
10 will be able to abbreviate his summary where it
11 speaks to those foundational questions of the
12 transmission engineering.

13 It is important to remember that the
14 staff, Mr. Mark Hesters, did file, as of December
15 17th, testimony involving transmission engineering
16 and its relationship to emission impacts. And
17 that's the substance of the testimony of Mr.
18 Salyer here.

19 And I would submit that after Mr. Salyer
20 makes his summary, explains it, that perhaps
21 counsel for the applicant can make a judgment
22 about whether to move to strike or object.

23 MR. GRATTAN: I'd be more than willing
24 -- actually, maybe we can get right to the nut of
25 this, to accept; I think it's fair comment, the

1 witness' comments on Mr. Hesters' testimony.

2 So I think that begins on page 7.

3 MR. DeCUIR: We're going to spend more
4 time talking about this than if we just let Mr.
5 Salyer proceed, perhaps.

6 MR. GRATTAN: Well, okay.

7 MR. DeCUIR: May Mr. Salyer proceed?

8 MS. HOLMES: I'm sorry, I'm very
9 confused. Is he testifying -- is he sponsoring
10 pages 1 through 7 with respect to whether or not
11 there is a firm transmission right that was
12 referred to earlier and other transmission system
13 engineering issues today? Or is that not what
14 we're dealing with?

15 HEARING OFFICER FAY: Do you have a
16 comment to make on that, regarding your witness?

17 MS. HOLMES: Well, I had some concerns
18 about relevancy given the CEC's jurisdictional
19 limits. I can certainly handle it in a brief. I
20 had planned to do some cross-examination on that
21 point.

22 But if it's not going to come in as
23 testimony, that makes my life a whole lot easier.

24 MR. DeCUIR: Let me remind the parties
25 that the testimony of Mr. Larson was admitted

1 without objection. And the testimony that Mr.
2 Salyer has included recites portions of Mr.
3 Larson's testimony, and is nothing new.

4 PRESIDING MEMBER MOORE: Well,
5 counselor, I'd like to just keep it to air quality
6 if we can. So, let's pick up on page 8, I think,
7 is --

8 HEARING OFFICER FAY: Ten. Yes, Mr.
9 Salyer, what we will do is take into account your
10 earlier comments, as part of your testimony up to
11 page 10 as comment. But the hearing -- counsel's
12 right, the hearing was closed on transmission
13 system engineering.

14 We are interested in what you have to
15 tell us about the relationship between the
16 concerns you have and air quality impacts.

17 MR. DeCUIR: But the ruling of the Chair
18 will not prevent us from examining Mr. Hesters on
19 cross-examination on his transmission engineering
20 testimony, I presume?

21 HEARING OFFICER FAY: That's right, it
22 will not prevent you from doing so.

23 MR. DeCUIR: All right.

24 BY MR. DeCUIR:

25 Q If you would proceed. I think that

1 would require you, Mr. Salyer, to skip over some
2 of the background and get to the heart of the
3 matter of what congestion causes as a significant
4 adverse impact.

5 A It's been my experience that there are
6 times that south of path 15 is curtailed. And
7 during these curtailments what typically happens
8 is dispatch from Modesto Irrigation District will
9 go ahead and fire up some of Modesto Irrigation
10 District's generation, be it hydro or thermal
11 units. Hydro if there's water available.
12 Otherwise our thermal units, which would be our
13 McClure or our Woodland generation stations.

14 And these would run to replace power
15 that we import from the southwest, which is our
16 San Juan power. We have a block of about 80
17 megawatts that we bring up from the southwest.

18 So when there are curtailments we
19 replace that with local generation. And that's
20 for two reasons. One is these curtailments
21 usually come at a moment's notice. Our dispatch
22 will get a phone call that says path 15 is
23 curtailed.

24 And at that time, usually if Woodland's
25 on line we will ramp that up, which will put out

1 more emissions at that point. Or we will start up
2 our McClure generation station to fill that void.

3 There's also economic implications, too,
4 because if we were to go -- it takes time to go
5 out and buy the power. You can't just
6 instantaneously go out and buy the power say at
7 the PX. You've got a couple-hour void in time
8 there.

9 And also we have to consider our local
10 generation, the fixed cost is already paid on the
11 local generation, so when we make a decision if we
12 should run or not, we just look at the variable
13 cost on our local generation.

14 So it is my opinion that looking at
15 adding the proposed Sunrise project, or these
16 other proposed projects, to the Midway station may
17 cause more congestion. And increasing congestion
18 will cause our units to run more often than we
19 normally would plan, which would contribute to the
20 air emissions in the San Joaquin Valley.

21 Q All right.

22 MR. DeCUIR: If there are any questions
23 from the parties Mr. Salyer is available.

24 HEARING OFFICER FAY: Thank you. Mr.
25 Grattan.

1 MR. GRATTAN: Just a few, Mr. Salyer.

2 CROSS-EXAMINATION

3 BY MR. GRATTAN:

4 Q Tell me a little bit about Modesto
5 Irrigation District. I presume it's a municipal
6 district?

7 A It's an irrigation district that was
8 created by the Wright Act. We are a public
9 utility. We do provide the electricity for the
10 Modesto district area.

11 It's not technically a muni, but it's
12 pretty close to a municipal type utility.

13 Q Your customers are owners?

14 A Yes, they are. Yes, we are a public --

15 Q And how many customer-owners do you
16 have?

17 A I believe it's approximately 90,000 at
18 this point.

19 Q Now you mentioned the San Juan project
20 on page 12. What kind of fuel does that plant
21 use?

22 A That's a cofired generation facility.

23 Q Okay, do you know the emissions
24 associated with that plant?

25 A No, I don't.

1 Q Would you say that on the whole it
2 probably emits greater amounts of NOx, SOx, PM10
3 than --

4 MR. DeCUIR: Objection.

5 BY MR. GRATTAN:

6 Q -- a gas-fired plant?

7 MR. DeCUIR: Objection.

8 MR. SALYER: I don't know.

9 MR. DeCUIR: Objection. Excuse me.

10 HEARING OFFICER FAY: What's the basis
11 for your objection?

12 MR. DeCUIR: The objection was that the
13 answer was that he did not know the emissions of
14 the San Juan plant. And the very next question
15 was --

16 HEARING OFFICER FAY: Well, but --

17 MR. DeCUIR: -- he said he didn't know
18 that.

19 HEARING OFFICER FAY: -- we're talking
20 order of magnitude, right? Kind of a qualitative
21 difference?

22 MR. GRATTAN: Let me rephrase the
23 question.

24 BY MR. GRATTAN:

25 Q Would you say that a coal plant emits

1 more than a gas plant on the whole?

2 A I would --

3 Q As a general rule?

4 A I would say it depends on the age of the
5 plant. If you had a brand new coal-fired plant
6 and an old gas plant, probably be --

7 Q What if you had a new gas plant?

8 A If you have a new gas plant it would
9 most likely run cleaner.

10 Q Thank you. You mentioned when
11 congestion exists at Midway and you must turn on
12 your local resources, which are McClure and
13 Woodland, I guess McClure 1 and 2, and Woodland,
14 is that correct?

15 A That's correct.

16 Q You say it's likely. What does likely
17 mean? Does it mean for sure?

18 A I would say it depends on our hydro
19 situation. If we have --

20 Q It doesn't mean for sure, then?

21 A No. It's a high probability.

22 Q Can you predict it with any degree of
23 certainty?

24 A Just talking to our dispatchers and
25 based on their experience, the numbers they gave

1 me is typically 95 percent of the time, 90 percent
2 of the time they would go to the McClure facility
3 first.

4 Q Which is the cleaner facility, correct?

5 A McClure, no. No, Woodland takes an hour
6 to get on line. McClure can be on line in ten
7 minutes.

8 Q I see. So if -- have you --

9 MR. DeCUIR: There was an unanswered --

10 MR. GRATTAN: Yes.

11 MR. DeCUIR: -- question, and that was
12 whether it was a cleaner facility.

13 MR. SALYER: No. Woodland is a cleaner
14 facility between McClure and Woodland.

15 MR. GRATTAN: Got it, got it.

16 BY MR. GRATTAN:

17 Q Would you have other options? I mean
18 you mentioned that sometimes you can't buy power,
19 but I presume buying other power is an option?

20 A It depends. If it's a real-time
21 curtailment, they're usually not able to react
22 quick enough to buy power, and McClure is the
23 fastest and easiest fix.

24 Or if there's water available, starting
25 up the Don Pedro plant. On the PX it definitely

1 takes too long to buy it.

2 Q You basically fire up those plants based
3 on economic dispatch?

4 A If there's not curtailments and it's no
5 curtailments on the system, it would be based on
6 economic dispatch.

7 Q And if you -- have you considered
8 environmental dispatch?

9 A Yes. That would be my preference on why
10 there would be changes to the transmission system
11 or remedial action schemes down at Midway for new
12 plants, because if that exists we wouldn't be in a
13 position, or there would be less times we would
14 actually have to run our local generation.

15 Q You could buy, for instance you could
16 buy from a plant such as the Sunrise power plant?

17 A At times that's a possibility.

18 Q When you turn on McClure because of
19 congestion I presume that you have permit levels,
20 and I presume you'll stay within your permit
21 levels?

22 A That's correct.

23 Q Okay. And this plant was permitted
24 under new source review?

25 A Back in 1980 for the McClure facility,

1 yes.

2 Q And if you exceeded your -- if you would
3 have to exceed -- are you limited in the hours you
4 can operate McClure?

5 A We're limited to the number of hours in
6 a year, yes.

7 Q And do you anticipate because of the
8 Sunrise plant that you're going to have to exceed
9 those number of hours a year?

10 A I don't know the answer because I don't
11 know how much we're going to be curtailed.

12 Q That's fair enough. And I take it that
13 the Woodland plant is also permitted under new
14 source review?

15 A Yes.

16 Q More recently?

17 A Yes.

18 Q My colleagues tell me it's a very clean
19 plant. Congratulations.

20 And I believe at least with the McClure
21 plant that you had a full environmental impact
22 report?

23 A On McClure?

24 Q Excuse me, Woodland.

25 A Yes.

1 Q And the conclusions of that report were
2 that -- were the conclusions that it would
3 significantly impact the environment, the
4 operation of this plant?

5 A No.

6 Q Okay, the conclusions were that it would
7 not significantly impact --

8 A That's correct.

9 Q Thank you. Okay, McClure 1 and 2 are
10 each 49.9 megawatts, is that right?

11 A They were sited at 49.4 megawatts.

12 Q How far apart are they?

13 A From each other? Oh, 100 feet, 200
14 feet, something like that.

15 Q I see. Do you know the jurisdictional
16 threshold of this agency, the California Energy
17 Commission?

18 A On siting a new plant?

19 Q Yes.

20 A Fifty megawatts.

21 Q Fifty megawatts. Have either of these
22 units --

23 MR. DeCUIR: Let me make an objection
24 because I don't appreciate the relevance of the
25 line of questioning that goes from was there an

1 environmental impact report for a power plant to
2 construct it, or that goes to what is the siting
3 jurisdiction of the Commission.

4 It seems with the limited time that the
5 Committee has to hear the witnesses, and all of
6 them, that the line of questioning ought to be
7 justified as relevant.

8 MR. GRATTAN: I'd be pleased to justify
9 it.

10 HEARING OFFICER FAY: Yeah, Mr. Grattan,
11 you're going to tell us how this goes to air
12 quality problems?

13 MR. GRATTAN: Just to the testimony,
14 appears to be that turning on the McClure 1 and 2
15 plants is going to have a deleterious impact on
16 air quality.

17 If this plant array is a plant which is
18 subject to the jurisdiction of the California
19 Energy Commission then the California Energy
20 Commission is going to exercise its statutory and
21 regulatory powers to see that the construction,
22 which has happened, and operation of this plant
23 will not significantly impact environmental
24 resources to include air quality.

25 HEARING OFFICER FAY: And his answer was

1 that it was not subject to the Commission's
2 jurisdiction.

3 MR. GRATTAN: Well, then we go someplace
4 else.

5 HEARING OFFICER FAY: And where will
6 that be?

7 MR. GRATTAN: The air district.

8 HEARING OFFICER FAY: All right.

9 Overruled. Go ahead.

10 MR. GRATTAN: I guess basically I will,
11 having asked the question and having, I believe,
12 gotten an answer, I will let it go.

13 BY MR. GRATTAN:

14 Q But I will read from -- are you familiar
15 with the California Energy Commission's ER-96 --

16 MR. DeCUIR: Your Honor, I'd object, Mr.
17 Fay, Mr. Hearing Officer, that the reading of
18 something from any publication at this point is in
19 the nature of argument, and it would be proper in
20 the briefs and it would be proper if we had oral
21 argument, but --

22 HEARING OFFICER FAY: Can't we short-
23 circuit it, Mr. Grattan?

24 MR. GRATTAN: Finally. Finally.

25 //

1 BY MR. GALATI:

2 Q You're not saying, are you, Mr. Salyer,
3 that your operation of McClure 1 or 2 and/or
4 Woodland is going to significantly adversely
5 impact air quality in California, or air quality
6 in the valley?

7 A What I'm saying is it contributes to the
8 air impact in the San Joaquin Valley.

9 Q But you can't say that it significantly
10 impacts the air quality?

11 A No, just it's contributing.

12 Q And on page 14 of your testimony, the
13 last page, you seem -- there's some language here
14 I'd like you to explain to me.

15 You state that it could require
16 operation of Woodland generation stations for much
17 longer periods than intended. Could have a direct
18 adverse impact on air quality. And you further
19 say that no applicant has suggested mitigation for
20 environmental impacts.

21 You're not really suggesting that the
22 applicant here mitigate for the impact of your
23 decision, your economic -- excuse me, MID's
24 decision, MID's economic decision to fire up the
25 McClure and/or Woodland plants?

1 A Could you rephrase that, I didn't
2 understand --

3 Q You're not suggesting we offset your
4 plants, are you?

5 A No. What I'm suggesting is that the
6 Sunrise project doesn't put us in the position to
7 run more than we normally would on economic
8 dispatch.

9 And in my opinion things could be done
10 such as remedial action schemes or upgrades to the
11 transmission system at Midway to mitigate the
12 congestion that the Sunrise project may add to the
13 Midway station and path 15, which would prevent us
14 from getting our share of the San Juan project,
15 which we are committed into, it's a baseload
16 resource, up to Modesto.

17 MR. GRATTAN: Okay. I have no further
18 questions.

19 HEARING OFFICER FAY: All right. Ms.
20 Holmes?

21 MS. HOLMES: Thank you.

22 CROSS-EXAMINATION

23 BY MS. HOLMES:

24 Q I'd like to go back to an earlier part
25 in your testimony. Beginning on about page 9 you

1 talk about Mr. Hesters' analysis. Do you
2 recollect that discussion?

3 A Somewhat, yes.

4 Q In your testimony you basically say that
5 you don't agree with Mr. Hesters' conclusions
6 about the impacts of potential congestion due to
7 Sunrise on generation in northern California. But
8 you don't say what your conclusions are.

9 Could you let me know what those are,
10 please?

11 A Could you restate the question?

12 Q I'm specifically wanting to know what
13 your conclusions are about any effect of increased
14 congestion at Midway due to the Sunrise project on
15 generation in northern California.

16 A Okay.

17 Q I guess we'd call them indirect effects,
18 as opposed to the direct effects of --

19 A Right.

20 Q -- the operation of your facilities.

21 A Yeah. My analysis of Mr. Hesters'
22 testimony was that he was looking at it as one
23 power pool. And yeah, that's true, but what you
24 have to remember is there are different entities
25 in northern California.

1 And in the case of Modesto Irrigation
2 District, if there's congestion, as I'd stated
3 earlier in my testimony, when there's congestion
4 we're in a situation where we are forced to run
5 our local generation. Again, be it thermal or
6 hydro. Which would create more emissions.

7 Q So, is your discussion about
8 environmental effects in northern California
9 limited simply to a discussion of those effects
10 that come from the operation of your locally owned
11 resources?

12 A Yes.

13 Q You're not talking about what would
14 happen at other generating facilities in northern
15 California?

16 A No.

17 Q Okay.

18 MS. HOLMES: Thank you.

19 HEARING OFFICER FAY: Ms. Poole?

20 MS. POOLE: I have no questions.

21 MS. HOLMES: I'm not -- I'm sorry, --

22 HEARING OFFICER FAY: Oh, I'm sorry.

23 (Laughter.)

24 HEARING OFFICER FAY: You snooze, you
25 lose.

1 MS. HOLMES: I'm just getting to the
2 good part.

3 BY MS. HOLMES:

4 Q We heard some discussion earlier about
5 some of the resources that you have available to
6 them. We talked about the San Juan facility and
7 you stated that the San Juan facility is a coal
8 plant?

9 A Yes, it is.

10 Q Do you know how old it is?

11 A It was built in -- well, there's four
12 different units and each unit was built at a
13 different time. It was built in the '70s. And
14 the unit 4 that we own a piece of, I believe was
15 built around 1980.

16 Q And do you know if it was offset?

17 A I don't know.

18 Q Do you know whether or not either your
19 McClure facility or your Woodland facility were
20 offset?

21 A They were both built at times when
22 emission offsets weren't required. Woodland had a
23 150-pound per day requirement. And there was a
24 window of around July of -- I'm going to get the
25 date wrong, but it was probably around '91, that

1 if a plant was sited before this magic date, and
2 if the emissions for NOx were below 150, no
3 offsets were required.

4 And I was not around when the McClure
5 facility was sited, but I don't know how that was
6 handled on McClure.

7 Q And I apologize, you have have been
8 asked and answered this question, do you know what
9 the operating limits are of the number of hours
10 per year for those two facilities?

11 A On Woodland the number of operating
12 hours on natural gas are continuous. On --

13 Q So you can run that as a baseload
14 facility?

15 A Yes. On the McClure facility it would
16 be based on 10 percent of the number of hours in
17 the year, which is I believe 877 hours per unit.

18 Q And do you know what would happen if you
19 found it necessary to increase the amount of
20 operating hours of that facility above that 10
21 percent? Do you know what steps you'd have to go
22 through with the district in order to receive
23 permission to do that?

24 A No, I would have to call them once we
25 got close to it. Operating hours is something we

1 keep a very close handle on. So, up to now we
2 haven't gotten close enough for us to get into
3 that conversation.

4 I do know that anything above 877 hours
5 involves some major retrofits to the unit.

6 Q Do you know whether --

7 A It's some pretty major steps.

8 Q Do you know whether or not you'd need to
9 have a change to your district permit?

10 A Above 877?

11 Q Yes.

12 A Yes.

13 Q And do you know whether or not that
14 would require you to provide offsets for that
15 modification?

16 A I don't know for sure.

17 Q You stated earlier that you have a
18 preference for environmental dispatch, is that
19 correct?

20 A No, --

21 Q I believe you testified earlier, we
22 talked about whether or not you -- how you
23 dispatched your plants, and you stated that it was
24 on an economic basis. And I believe that Sunrise
25 asked you about environmental dispatch.

1 Perhaps you could repeat your response
2 to that?

3 A It was more of a consideration and a
4 preference, right. Like I said, we run the units
5 based on economic dispatch. And all things
6 considered we plan on our resource from the
7 southwest. That's the ideal world.

8 If there's curtailments then we go
9 beyond economic dispatch and we have to run our
10 local units, which has environmental consequences.

11 So that would be not our first
12 preference. Our first preference would be able to
13 get our resource from the southwest.

14 Q Do you know whether or not the Sunrise
15 facility has provided offsets?

16 A Based on today's rules they would have
17 to.

18 Q So if the resources that you're
19 discussing were dispatched in order of
20 environmental preference, wouldn't the Woodland
21 facility be the cleanest?

22 A Versus McClure? Yes, it would.

23 Q And McClure would be somewhat dirtier?

24 A Yes.

25 Q And San Juan would be dirtiest?

1 A I don't know where McClure ranks
2 relative to San Juan, but they are also different
3 air districts, and San Juan doesn't have quite the
4 same air impacts that our local air district does.

5 Our local air district is ranked serious
6 in attainment. And there's talk about ratcheting
7 that up to severe.

8 Q Do you know what the attainment
9 designation is of the area where the San Juan
10 plant is located?

11 A No, I don't.

12 Q Okay, thank you.

13 MS. HOLMES: That's all my questions.

14 PRESIDING MEMBER MOORE: Ms. Poole?

15 MS. POOLE: No questions.

16 PRESIDING MEMBER MOORE: No questions.

17 All right, Mr. DeCuir.

18 MR. DeCUIR: I was going to ask a few
19 redirect questions, if that's all right?

20 PRESIDING MEMBER MOORE: Certainly.

21 REDIRECT EXAMINATION

22 BY MR. DeCUIR:

23 Q Mr. Salyer, in speaking about economic
24 dispatch and your preferences, you had noted
25 originally when Mr. Grattan was talking to you,

1 that when you had water available that
2 hydroelectric power could sometimes be available
3 to the district, is that correct?

4 A That is correct. And that would be our
5 first choice.

6 Q And when you were asked by Mr. Grattan
7 about whether the district would be interested in
8 buying power from the Sunrise power project, did
9 you have the opportunity to explain that that
10 would mean that you would be keeping up your
11 payments on the transmission reinforcements for
12 South of Tessla and payments for San Juan at the
13 same time? Would you explain that?

14 A Yes. As I had mentioned earlier, San
15 Juan is a baseload resource, so there is a lot of
16 fixed costs there. We have a take-or-pay
17 requirement on the coal. We have fixed cost
18 obligations on our transmission. The variable
19 component of San Juan is very small.

20 So to make a decision, say, to purchase
21 Sunrise power we would have to dispose of the San
22 Juan power, and that's not always so easy to do.

23 Q And finally, Mr. Grattan asked you about
24 significant impacts, and he attempted to relate it
25 solely to your power plants and emissions there in

1 the Modesto area.

2 Is it your testimony that you have filed
3 and ascribed here that the significant adverse
4 impacts that you're concerned about are the
5 cumulative nature from this plant and all the
6 other plants?

7 A Yes.

8 MR. GRATTAN: Objection, that
9 mischaracterizes the testimony. He did not say it
10 was significant in his testimony, and he did not,
11 the witness did not say it on cross-examination.

12 MR. DeCUIR: I think the record can
13 stand for what it is.

14 HEARING OFFICER FAY: Do you want to
15 correct that? What's the answer?

16 MR. DeCUIR: Well, the answer, I
17 believe, Mr. Fay, is very clear. The question
18 that Mr. Grattan asked the witness, if the
19 operation of the Woodland or McClure power plants
20 created a significant adverse impact by themselves
21 in Modesto when congestion occurred at Sunrise.

22 The witness is testifying now, when I
23 ask him on redirect about cumulative significant
24 adverse impacts from all of the plants that are
25 being proposed through Midway, and he said yes,

1 that's his concern.

2 They're two different questions.

3 HEARING OFFICER FAY: Is that your
4 testimony, Mr. Salyer?

5 MR. SALYER: Yes, it is.

6 HEARING OFFICER FAY: Thank you. I've
7 got a few questions.

8 EXAMINATION

9 BY HEARING OFFICER FAY:

10 Q Mr. Salyer, where else have you taken
11 this concern? What other forums?

12 A No other forums at this point.

13 Q No other forums? And you talked --

14 MR. DeCUIR: Mr. Fay, I would object to
15 that question because I think it calls for a legal
16 conclusion. The premise is that there are other
17 fora available, and I don't believe it's been
18 shown that this witness has that background to
19 testify on the subject.

20 HEARING OFFICER FAY: Well, I'm just
21 curious if he has spoken to other fora about this
22 topic. And he's answered my question. Thank you.

23 MR. DeCUIR: I didn't mean to get in the
24 way, but I think I had that obligation to --

25 HEARING OFFICER FAY: I understand.

1 I think that unless you have any further
2 redirect, -- is there any recross based on the
3 redirect?

4 I hear none.

5 MR. DeCUIR: I want to thank you for
6 taking us out of order. We appreciate that very
7 much.

8 HEARING OFFICER FAY: Sure. Okay. A
9 moment of consultation.

10 (Pause.)

11 MS. POOLE: Mr. Fay, --

12 HEARING OFFICER FAY: Yes.

13 MS. POOLE: -- I have another scheduling
14 concern. Mr. Winegar, who has come with us to
15 testify as to air quality, and I was planning on
16 putting on in the operations impact section, will
17 be available through tomorrow morning. But then
18 he must leave. And if tomorrow morning is going
19 to be taken up with biology, I'm concerned about
20 the time.

21 HEARING OFFICER FAY: Okay. We'll have
22 to see if we can squeeze that in some way.

23 MS. POOLE: I don't think it will take
24 very long.

25 HEARING OFFICER FAY: Okay. I would

1 like to take a short break for everybody's
2 benefit, no more than ten minutes. And then get
3 to Mr. Hesters, if he's available this afternoon.

4 MS. HOLMES: Mr. Hesters need to leave
5 for a doctor's appointment, and has talked with
6 the attorney from TANC about testifying on
7 Thursday. Apparently it's more convenient for
8 them to do that, so --

9 HEARING OFFICER FAY: On Thursday, all
10 right. And can you be available, Mr. DeCuir?

11 MR. DeCUIR: Yes, only on Thursday, but
12 I would be available Thursday.

13 HEARING OFFICER FAY: All right. Well,
14 we'll deal with Mr. Hesters on Thursday, then.
15 Let's take a ten-minute break.

16 (Brief recess.)

17 HEARING OFFICER FAY: All right, we're
18 back on the record. I indicated that we would
19 move to CURE's modeling witness.

20 MS. POOLE: I appreciate that, thank
21 you.

22 MR. GALATI: If I could just raise an
23 objection for the record, that this witness filed
24 no prefiled testimony, and with respect to any
25 issue as I understand it, I'd like to at least

1 hear an offer of proof of what this witness would
2 be testifying to.

3 MS. POOLE: This witness will be
4 testifying strictly on the air quality sampling
5 that CURE conducted. We filed the results of that
6 sampling as far back as September. We've
7 subsequently had a workshop at which those results
8 were discussed. Your concerns that were raised in
9 Texaco's testimony for the first time on January
10 3rd were not raised at that workshop. This is our
11 first opportunity to respond.

12 HEARING OFFICER FAY: This is rebuttal
13 testimony?

14 MS. POOLE: Yes.

15 MR. GALATI: And just for the record I'd
16 like to raise that staff actually raised issues
17 with respect to that, the quality of that test
18 data at that workshop. And our position is that
19 this testimony should have been prefiled and we
20 object to it.

21 MS. POOLE: These criticisms that were
22 raised in Texaco's testimony are very different
23 from what was discussed at the workshop.

24 HEARING OFFICER FAY: Well, your
25 objection is noted for the record. We're going to

1 move ahead and hear from the witness and allow the
2 parties to cross-examine.

3 MS. POOLE is limiting this to a ten-
4 minute presentation. Go ahead.

5 MS. POOLE: Thank you. Mr. Winegar,
6 would you please state your name and
7 qualifications for the record?

8 HEARING OFFICER FAY: We need to swear
9 the witness.

10 MS. POOLE: Oh, I'm sorry, yes, we do
11 need to swear the witness.
12 Whereupon,

13 ERIC WINEGAR
14 was called as a witness herein and after first
15 being duly sworn, was examined and testified as
16 follows:

17 DIRECT EXAMINATION

18 BY MS. POOLE:

19 Q Now, would you please state your name
20 and qualifications for the record?

21 A My name is Eric Winegar, W-i-n-e-g-a-r.
22 I have a PhD in physical and environmental
23 chemistry from UC Davis, a masters degree in
24 physical chemistry and a bachelors degree in
25 chemistry.

1 I was employed at Radian Corporation for
2 five years. Following that I was employed at Air
3 Toxics, Ltd., which is an air Quality laboratory,
4 for five years as Director of Research and
5 Technical Services.

6 And for the last two years I've owned my
7 own company conducting primarily air measurements.

8 Q Now, did you collect air quality samples
9 for CURE on August 31st and September 1st of 1999?

10 A Yes.

11 Q Texaco has raised concerns about the
12 equipment that you used to collect this data,
13 specifically on page 27 of Paula Fields'
14 testimony, and I believe 28, as well.

15 Would you please describe your
16 experience with the piece of equipment which
17 they're concerned with, which is called a Jerome
18 model 631X?

19 A Yes, I've had extensive experience with
20 the Jerome 631X, ranging from using it as just a
21 simple tool for field measurements for a variety
22 of field projects to look at hydrogen sulfides,
23 such as wastewater treatment plants and compost
24 facilities and the like.

25 I also have conducted a research project

1 for Arizona Instruments which is the manufacturer,
2 in which I conducted a laboratory validation study
3 comparing laboratory measurements versus the field
4 measurements that the instrument provided.

5 In addition, for the past 15 months
6 there's been mention of the project down in Avila
7 Beach. I've been the project manager for the air
8 monitoring program down there, and we've had two
9 Jerome instruments in there going continuously,
10 and which resulted for probably upwards of 70,000
11 specific individual hydrogen sulfide measurements
12 over that time period.

13 Q And you supervised that sampling
14 operation?

15 A I supervised all of that sampling, and
16 I've reviewed all of that data.

17 Q Texaco states that among the things that
18 can affect the accuracy of the Jerome analyzer are
19 sudden temperature changes. Could you address
20 this concern and explain whether it would affect
21 the measurements you took for CURE?

22 A That's a true statement in general;
23 however, for this particular project, this
24 particular sampling event, it is not applicable.
25 Both time periods in question were during the

1 summertime and the ambient temperature was
2 constant.

3 One was during the morning hours,
4 daytime morning hours. The other one was during
5 nighttime hours. There was never any -- the
6 instrument was never subjected to extreme
7 temperature changes.

8 Q And there's also been a concern raised
9 about impacts on the instrument from concentration
10 changes. Could you also address that concern and
11 explain whether it would affect the measurements
12 you took for CURE?

13 A Yeah, again that's a true statement in
14 certain situations. However, it's not applicable
15 to this one.

16 If you took a measurement of a
17 thousandths of ppb or ppm level of hydrogen
18 sulfide and immediately tried to do it to a ppb
19 single digit ppb measurement immediately, there
20 would be some carry over.

21 However, in this case all of the
22 measurements were within a few tens of ppb, and
23 there is, from my experience, there is no
24 carryover, no difference between one measurement
25 to the other because of concentration changes.

1 If there is a concentration change it's
2 typically due to a dramatic change in the source,
3 if you're sampling at a particular point source,
4 which was not the case here.

5 My experience in Avila in all of the
6 project work we did down there, was that it was
7 the concentration changes were minimal over the
8 entire time period. And this was even in the
9 region of lots of vehicles working and open pits
10 with hydrocarbon contamination and the like.

11 So, I believe that in this particular
12 type of sampling that was conducted, this would
13 have no effect.

14 Q And how about changing meteorology?

15 A Well, meteorology can affect any type of
16 air quality measurement, however my experience has
17 been again for both the Avila project, I keep
18 referring to that, and that's because it's been --
19 it's so closely related to this type of a -- this
20 situation where there was an ambient, many ambient
21 measurements taken over a relatively short period
22 of time.

23 And my experience has been that if there
24 is a change in a concentration it's due because
25 there is a point source, or some specific

1 identifiable source that in itself is changing.

2 But, in general, regional background
3 levels do not change, and consequently would not -
4 - I didn't observe any of that in this case,
5 either.

6 Q There is also a concern raised in
7 Texaco's testimony based on the calibration of the
8 instruments, they state that Arizona Instruments
9 guarantees the calibration for one year.

10 Prior to taking these samples in late
11 August and early September, when had the equipment
12 that you used been last calibrated?

13 A The instrument that I used had been
14 calibrated within the -- the normal range for
15 calibration is once a year. The instrument that I
16 used had been calibrated at least twice in the
17 eight months prior to that sampling.

18 And I should note that a calibration
19 procedure, in all of the calibrations that we had
20 done over the past 15 months on that instrument,
21 it involved also the replacement of the sensor,
22 and revalidation of a new sensor.

23 So, in essence it was a new instrument
24 two or three times in the preceding months. So I
25 have no doubt about its capability to provide

1 accurate measurements.

2 Q There's also a concern raised here that
3 the CARB sampling protocol for determining
4 compliance with ambient air quality standards was
5 not followed.

6 Was that a concern in your sampling
7 procedure?

8 A Can I add one more thing about the
9 calibration?

10 Q Certainly, --

11 A I just thought of something. I wanted
12 to explain a little bit about the calibration
13 procedure because I know, I understand where the
14 objections to what had been written were coming
15 from.

16 The calibration procedure for this
17 instrument consists of over 250 individual
18 measurements and a calibration bench generated
19 with a permeation two based on an NIST traceable
20 standard.

21 So it's a very rigorous protocol, and
22 that is followed on every particular
23 recalibration. And so that procedure had been
24 followed. It just wasn't documented in my
25 original report, which was abbreviated just as a

1 data dump in essence.

2 Q Thank you. There's been a concern
3 raised that the CARB sampling protocol for
4 determining compliance with ambient air quality
5 standards was not followed here.

6 Could you address that concern, please?

7 A Yes. The original intent was not to do
8 exactly what CARB tries to do in their compliance
9 type of measurements.

10 We were looking for data as an indicator
11 of hydrogen sulfide concentrations in the area.
12 We were looking for data as it related to risk
13 assessment, for risk assessment type of scenario,
14 in exposure you want to collect a sample that's in
15 the breathing zone, around five feet high, not the
16 three to 15 meters type of thing that CARB
17 recommends for a permanent type station.

18 Also, the siting criteria, both EPA and
19 CARB, lists a number of types of sampling site
20 criteria for different type of representativeness.
21 And this representativeness question for this was
22 more on a very micro-scale level, as opposed to a
23 large regional multi-mile area that the CARB
24 siting is generally looking at.

25 So, in my opinion, other than the height

1 restrictions none of the CARB siting criteria were
2 violated. The obstructions from other buildings
3 or other kinds of obstructions were not violated.

4 And regardless of that, the purpose of
5 the study was not the same as with the CARB study.

6 Q And the CARB protocol would not apply to
7 studies performed for risk assessment, for
8 example?

9 A That's right. In addition, there is a
10 special category called special studies, which is
11 basically everything other than the usual siting
12 criteria.

13 And so this would fall under the
14 category of a special study.

15 Q That's a CARB protocol for special
16 studies?

17 A I can't cite exactly whether it's a CARB
18 thing, but I do know that EPA has that designation
19 for siting criteria.

20 Q Okay. There's also an assertion in
21 Texaco's testimony that 24-second readings are
22 unreliable, and affected our background
23 measurements. Could you address that, please?

24 A Well, there are a lot of instances where
25 grab samples are used because of limitations in

1 the type of instruments, as opposed to a
2 continuous measurement. Not all instruments that
3 provide air quality measurements are continuous in
4 nature. And so, because of that fact one is often
5 limited to a series of grab samples.

6 There is ample evidence, ample examples
7 of times in which single grab samples have been
8 used for various types of air quality
9 determinations.

10 But the data, itself, shows that the
11 levels that were measured at the site during these
12 two sampling events did not vary significantly.
13 There are four instances here in which I returned
14 to the same location between 15 to 90 minutes
15 later and repeated, did another series of
16 measurements.

17 And the values between those two times
18 range from a difference of probably less than --
19 probably 2 to 3 percent, to up to the maximum of
20 20 percent difference. The 20 percent difference
21 is really negligible when it comes down to these
22 types of low concentration measurements. That's
23 pretty typical variability that you would expect.

24 So, on the basis of that, I believe that
25 these values would be representative of an hour

1 worth.

2 Q Are you aware of any problems with the
3 acrolein methodology used in your sampling?

4 A The sampling that I used was an
5 alternative to the normal or the EPA way of doing
6 it, in that the samples were collected into a
7 stainless steel suma canister instead of the DMPA
8 derivative type of sampling media.

9 The DMPA sampling derivative media is
10 documented through refereed literature references
11 to --

12 MR. GALATI: I need to object here.
13 We're getting into acrolein sampling methods.
14 Nothing in our testimony addressed criticism of
15 the sampling method for acrolein. We --

16 MS. POOLE: In fact, your testimony at
17 page 9 of the public health addresses that.
18 Because this witness is only available now, we're
19 addressing two quick questions related to that
20 issue. It's all the same sampling measurements,
21 it's just used for different purposes.

22 PRESIDING MEMBER MOORE: You know, other
23 than the time elapsed, I don't think the sampling
24 methods are controversial. At least I'm not
25 hearing any controversy.

1 It's already in the submitted testimony.
2 Why don't we let it stand.

3 MS. POOLE: Well, there are some
4 criticisms of the sampling methodology that are
5 being raised for the first time in Texaco's
6 testimony that was filed on January 3rd. Those
7 are the specific criticisms we're addressing. I'm
8 simply responding to issues that they have raised
9 in their written testimony.

10 And I only have one more question.

11 PRESIDING MEMBER MOORE: Go ahead, do
12 it.

13 BY MS. POOLE:

14 Q Texaco cites a concern about these
15 samples being taken from the intersection of
16 Moquel and Crocker Road. Were there any concerns
17 present when you took measurements at this
18 location that would compromise the measurement?

19 A Not at all. There's not a soul to be
20 seen in the area when I collected my samples.

21 Q And there were no cars?

22 A No cars.

23 MS. POOLE: Thank you. The witness is
24 available for cross.

25 PRESIDING MEMBER MOORE: All right,

1 Mr. Galati.

2 MR. GALATI: May I have just a moment?

3 PRESIDING MEMBER MOORE: Certainly.

4 HEARING OFFICER FAY: Ms. Holmes, will
5 you have some questions?

6 MS. HOLMES: I have three.

7 HEARING OFFICER FAY: Would you like to
8 go ahead?

9 MS. HOLMES: I'll wait until they're
10 done, they may ask them.

11 (Pause.)

12 CROSS-EXAMINATION

13 BY MR. GALATI:

14 Q Mr. Winegar, are you aware that the
15 measurements that you took were being compared to
16 a one-hour H2S standard?

17 A At the time, no.

18 Q You testified earlier that it was being
19 used for risk assessment, correct?

20 A I don't know if I knew that when I was
21 collecting samples or later on, but that's what
22 I've been informed, yes.

23 Q Are you aware that CARB requires a
24 reference method to be used when you're comparing
25 to a one-hour standard?

1 A Yeah, I think I'd say that I'm generally
2 aware of that.

3 Q Was your method equivalent to a one-hour
4 sampling?

5 MS. POOLE: Could you clarify that --

6 DR. WINEGAR: Yeah, I'm not sure --

7 BY MR. GALATI:

8 Q I need to find out how to phrase this
9 question. I can use the --

10 PRESIDING MEMBER MOORE: Counsel, are
11 you referring to an algorithm that allows a
12 statistical sample to be taken that approximates
13 an hour? Is that where you're going?

14 MR. GALATI: Actually, yes.

15 BY MR. GALATI:

16 Q Was your samples equivalent to an
17 integrated one-hour sample?

18 A No, no one sample is always equivalent,
19 however there are instances in which data from a
20 single grab sample can be interpreted as
21 equivalent to a longer period. There's EPA
22 guidance to that effect.

23 Q Is there a CARB reference method to that
24 that says that?

25 A There's no CARB reference method for

1 ambient hydrogen sulfide.

2 Q Isn't it a fact that the machine that
3 you used to measure this could only take up to a
4 24-second reading?

5 A That's correct.

6 Q And, again, you initially took these
7 samples to be used in a risk assessment?

8 A Yes.

9 MR. GALATI: No further questions.

10 HEARING OFFICER FAY: All right. Ms.
11 Holmes.

12 CROSS-EXAMINATION

13 BY MS. HOLMES:

14 Q Was the instrument that you used
15 calibrated on each day of the tests?

16 A It's generally calibrated at the
17 factory, and the factory certifies that
18 calibration for a year. The procedure for
19 starting the instrument in the morning, or
20 whenever it's used, is to regenerate the sensor
21 which is to turn it on and heat up the sensor and
22 the absorbent trail that's on it. Then to wait a
23 half hour and re-zero the bridge. All of that was
24 done.

25 Q In your mind does that constitute

1 confirming that the calibration is correct?

2 A According to specifications from the
3 manufacturer, yes.

4 Q What detection method is used in this
5 particular instrument?

6 A It's based on the change and resistivity
7 of a thin gold film in the detector. As hydrogen
8 sulfide absorbs on the surface, it changes the
9 resistivity which is detected as a change in
10 current.

11 Q Do you know whether the instrument has
12 any known interferences?

13 A That was part of the study that I did
14 with Arizona Instruments. It does have some known
15 interferences, but a maximum of approximately 30
16 percent of the hydrogen sulfide response.

17 Hydrocarbons and things like that do not
18 cause interferences.

19 Q What does cause interferences?

20 A The highest interference I believe was
21 dimethyl sulfide.

22 Q And lastly, are there instruments
23 available that are capable of measuring H₂S for
24 more than 24 seconds?

25 A There are continuous measurements that

1 can be done, but they are not portable.

2 MS. HOLMES: Thank you. Those are all
3 my questions.

4 PRESIDING MEMBER MOORE: Thank you, Ms.
5 Holmes. I'm just trying to see, the TANC
6 representative is not here, so I can't turn to him
7 for questions.

8 (Pause.)

9 PRESIDING MEMBER MOORE: Ready, Ms.
10 Poole?

11 MS. POOLE: Yes.

12 PRESIDING MEMBER MOORE: Commissioner
13 Rohy has a question before you start, if we can.

14 EXAMINATION

15 BY VICE CHAIRMAN ROHY:

16 Q You mentioned in your testimony that on
17 two previous occasions the sensor was replaced in
18 the last one year, I believe, is that correct?

19 A I think I said eight months, but, yes.

20 Q Eight months, okay. How do you know
21 when the sensor is bad and needs replacement?

22 A Usually when you get zeroes when you
23 know that you shouldn't get zeroes for an extended
24 period of time.

25 Q I'll let that one go by for a minute. I

1 trust you on that one.

2 Usually when you're taking sensitive
3 recordings you check the calibration after the
4 measurements. I understood from Ms. Holmes'
5 question that you zeroed it.

6 In my background that's different from
7 running a calgas or something else through it to
8 check the calibration. Did you, in fact, check
9 the calibration with a standard gas?

10 A No, I did not. I followed the vendor's
11 recommendations about annual calibration. But the
12 work that I had done previously with this
13 laboratory validation study confirmed that the
14 calibration stays solid for many many
15 measurements, hundreds and hundreds of
16 measurements.

17 In fact, the way they judge the need,
18 the vendor estimates that there are on the order,
19 and I'm not certain about the number, but several
20 hundred regenerations before the sensor needs to
21 be recalibrated.

22 Q Sounds like it's replaced during the
23 recalibration cycle, though, is that correct?

24 A Not always apparently. They do a check,
25 they check it out. And if it doesn't respond

1 favorably in some fashion, they determine that it
2 needs to be replaced.

3 Q When you say they, does that mean that
4 you send it back to the factory or to a --

5 A Yes.

6 Q -- factory representative?

7 A To the factory, itself.

8 Q How big is this instrument?

9 A It's about so big, weighs about seven
10 pounds.

11 Q Could you give for the record some
12 estimate of the inches and --

13 A Oh, --

14 Q Yeah big is kind of hard for the record.

15 A Yes. Fourteen inches long by eight
16 inches wide by about six inches high.

17 VICE CHAIRMAN ROHY: Thank you. I know
18 that's approximate, but it helps the record.

19 REDIRECT EXAMINATION

20 BY MS. POOLE:

21 Q How many samples did you take in this
22 sampling excursion you did for CURE?

23 A On two separate occasions, the first
24 event there were 35 samples; the second there were
25 43.

1 Q And was your approach to take three 24-
2 second samples and average them?

3 A Actually, I should clarify. Those were
4 sample numbers. In the majority of the cases I
5 took at least three, and sometimes four samples
6 sequentially, and then the final number was the
7 average taken of those.

8 All of this is represented in the table
9 that was submitted. And there were some cases
10 where there was just one single measurement.

11 Q So you actually took hundreds of
12 samples, correct?

13 A Close to that.

14 Q And did you take enough measurements
15 over a limited period of time in the oilfield to
16 determine a representative one-hour sample for
17 H2S?

18 A Actually I'm looking at this data little
19 bit more, it does -- with looking at the
20 timeframe, for example on September 1st from 12:30
21 a.m. to 1:30 a.m., there were a large number of
22 samples separated by three to five minutes. And
23 so that would be representative of a one hour
24 sample.

25 MS. POOLE: Thank you.

1 HEARING OFFICER FAY: Just one other
2 question.

3 EXAMINATION

4 BY HEARING OFFICER FAY:

5 Q I can't recall whose testimony it was,
6 but they indicated that the measurements showed at
7 one time a lower count of H2S in the Low Kern
8 natural area which would be expected.

9 And then in the oil field, and then the
10 opposite at another time. How do you explain that
11 type of change?

12 A I can't.

13 Q I mean does this surprise you that that
14 would happen?

15 MS. POOLE: I believe Dr. Fox can
16 address that.

17 DR. FOX: I believe the information that
18 you're referring to with respect to the
19 concentration being higher at Low Kern one time,
20 and then lower at Low Kern the other time,
21 compared to the oil field, that's not true for
22 hydrogen sulfide.

23 The hydrogen sulfide measurements were
24 uniformly lower at Low Kern than they were in the
25 oil field.

1 However, with respect to acrolein and
2 some of the other pollutants, the toxic
3 pollutants, that's true. On one day the
4 concentrations of several constituents, for
5 example acrolein, were higher in Low Kern than
6 they were in the oil field. And then on the
7 subsequent sampling trip they were higher in the
8 oil field than they were at Low Kern.

9 Which I think is probably what you're
10 remembering from staff's public health testimony.
11 The response to that is acrolein is a common
12 constituent in the atmosphere. It derives from
13 automobiles. And there's a very high ambient
14 background of acrolein throughout the state.

15 And it's primarily affected by transport
16 rather than the oil field operation. And so the
17 day where you saw high acrolein in Low Kern was
18 probably due to transport out of the Bakersfield
19 area into Low Kern. Whereas the day that you saw
20 low levels there wasn't any significant amount of
21 transport.

22 It's important to keep in mind the
23 constituents when you're talking about these
24 measurements, because things that are indeed
25 related to the oil field you would expect to be

1 higher in the oil field than in the background
2 area. And that's what we actually saw with
3 respect to hydrogen sulfide. But not all of the
4 other pollutants. It does flip on some of the
5 other pollutants because they're part of the
6 regional background.

7 HEARING OFFICER FAY: Okay, thank you.
8 Thanks for that clarification.

9 Thank you very much, Mr. Winegar. That
10 concludes your testimony.

11 What we plan to do is go no later than
12 6:00 p.m. tonight. And we'd like to move forward
13 then taking the air quality testimony on operation
14 impacts.

15 PRESIDING MEMBER MOORE: And what Mr.
16 Fay is not finishing saying is that tomorrow after
17 the biology we'll pick up where we left off. So
18 air quality will, for those of you who intend to
19 be part of the teams that testify tomorrow, that
20 will come back again after the biology testimony.

21 (Pause.)

22 MR. GALATI: If I could have the record
23 reflect that the panel is the same as this
24 morning, Mr. Stein, Ms. Fields and Mr. Srackangast
25 with respect to project operation.

1 Whereupon,

2 PAULA FIELDS, DAVID STEIN and ARNOLD SRACKANGAST
3 were recalled as witnesses herein and having been
4 previously duly sworn, was examined and testified
5 further as follows:

6 DIRECT EXAMINATION

7 BY MR. GALATI:

8 Q Ms. Fields, can you summarize the panels
9 testimony very briefly, highlighting any opinions
10 you may have about CURE's testimony?

11 A Certainly. You still want me to do the
12 summary, then?

13 Q Yes.

14 A Okay, great. I supervised and assisted
15 in the preparation of the AFC and revisions,
16 responses to CEC and CURE data requests, the
17 Sunrise comments on the PSA and the written
18 testimony pertaining to air quality impacts from
19 operation of the Sunrise project.

20 In this air quality analysis we
21 estimated emissions from the operation of the
22 project. We modeled the short-term and annual
23 impact of criteria pollutants using USEPA approved
24 models and USEPA and district approved
25 meteorological data from Fellows.

1 Our modeling showed that operation of
2 the Sunrise project will not cause any new
3 violation of the state and federal air quality
4 standards.

5 The Sunrise project will contribute to
6 existing violations of the state ambient air
7 quality standard for PM10, however the project
8 will provide PM10 offsets to mitigate these
9 impacts.

10 We determined the amount of ERCs
11 necessary to offset the criteria pollutant
12 emissions generated by the Sunrise project as
13 required by district new source review rule 2201.

14 The ERCs obtained by Sunrise meet all
15 applicable requirements and should be considered
16 valid for mitigation of Sunrise emissions.

17 We agree with staff's conclusions in the
18 FSA, as updated, in the revised air quality
19 testimony pertaining to Sunrise project operation,
20 and the conditions of certification. That is AQ-1
21 through AQ-40 with the exception of AQ-37 that
22 appears to be a duplicate.

23 Based on the ERCs to be provided and
24 compliance with the conditions of certification,
25 the impacts of operation of the Sunrise project

1 are insignificant and the project complies with
2 laws, ordinances, regulations and standards.

3 Our written air quality testimony
4 addresses and refutes CURE's comments on the PSA.
5 In addition, we've reviewed their testimony
6 pertaining to operation of the Sunrise project and
7 we have the following comments. And these
8 basically address the two issues.

9 Number one, secondary PM10. We do not
10 believe that any secondary PM10 that may be
11 generated by the Sunrise project will be
12 significant, for two reasons.

13 First of all, the San Joaquin Valley is
14 an ammonia-rich area, and any ammonia slip will
15 therefore not significantly contribute to
16 reactions with NOx or SOx to form PM10.

17 This opinion is corroborated by staff in
18 its FSA, and a Sonoma Technology report performed
19 for the LaPaloma project, which was relied on by
20 the Commission in a decision in that case.

21 CURE was an intervenor in that case, as
22 well, and that project is just eight miles away
23 from the Sunrise project.

24 Dr. Fox's conclusion that the Sonoma
25 Technology study is not applicable to the oil

1 fields because the oil fields are not ammonia rich
2 is not supported by our review of the literature.

3 We are providing a net air quality
4 benefit to the area regarding the potential
5 secondary PM10 formation by reducing the amount of
6 NOx and SOx in the region with the ERCs provided
7 for the project. That's the second reason why we
8 feel that secondary PM10 is not significant from
9 our project.

10 Secondly, ozone impacts. With respect
11 to Dr. Fox's conclusion that CO is an ozone
12 precursor, and that the Sunrise project should
13 provide additional offsets for its CO
14 contribution, her conclusion is based on very
15 limited theoretical study simulating specific
16 conditions that were not designed to depict those
17 found in western Kern County.

18 There is a complex scientific and
19 regulatory process that must be followed before
20 declaring a chemical and ozone precursor and
21 regulating its emissions and requiring offsets in
22 accordance with the district's ozone attainment
23 plan.

24 That process has not been completed for
25 CO, and a regulation of CO emissions at this

1 juncture is very premature.

2 Q Does that conclude your summary?

3 A Yes, it does.

4 MR. GALATI: The panel is available for
5 cross-examination.

6 HEARING OFFICER FAY: Ms. Holmes.

7 MS. HOLMES: I just need to clarify one
8 thing. We're not including any of the indirect
9 impacts at this point from --

10 HEARING OFFICER FAY: Right.

11 MS. HOLMES: Okay, then I have no
12 questions.

13 HEARING OFFICER FAY: Ms. Poole.

14 MS. POOLE: Thank you.

15 CROSS-EXAMINATION

16 BY MS. POOLE:

17 Q Ms. Fields, the regulatory process that
18 you just referred to to declare a pollutant a
19 precursor is for the air district's purposes,
20 correct?

21 A Correct.

22 Q I think this is a question for Mr. Stein
23 based on his testimony. Is it true that the
24 volume of exhaust gases emitted from a combustion
25 turbine is a function of the volume of gas

1 combusted?

2 MR. STEIN: Could you be more specific,
3 please, on the type of gas when you're talking?
4 Is that natural gas?

5 MS. POOLE: Yes.

6 MR. STEIN: Yes.

7 MS. POOLE: What's the approximate ratio
8 between the volume of gas that would be combusted
9 in this project, and the volume of gas combusted
10 in the Kern River Cogeneration project? A rough
11 estimate?

12 MR. STEIN: I don't know that off the
13 top of my head. I would guess based on the
14 relative size of the two, that, you know, that it
15 would be on the order of one-half, and that would
16 be just for the -- I would like to point out,
17 though, that that would be related specifically to
18 the overall gas volume that is being discharged,
19 and not necessarily -- there's not necessarily a
20 direct correlation for individual constituents.

21 MS. POOLE: I'm asking you about natural
22 gas combusted.

23 MR. STEIN: Natural gas --

24 MS. POOLE: The ratio between --

25 MR. STEIN: Yeah, I would say

1 approximately half.

2 MS. POOLE: So this project --

3 MR. STEIN: In Sycamore.

4 MS. POOLE: -- will combust twice as
5 much natural gas as the Kern River project
6 approximately?

7 MR. STEIN: Approximately. I think
8 there are other factors that come into play
9 including the efficiency of the unit, probably be
10 the most important factor. But I would say that's
11 probably good --

12 MS. POOLE: And same question for the
13 Sycamore project.

14 MR. STEIN: Now I'm confused. I thought
15 you just asked me for the Sycamore.

16 MS. POOLE: I just asked you for Kern
17 River.

18 MR. STEIN: Oh, okay. Yeah, I think the
19 turbines, my understanding is the turbines are
20 similar for those two facilities. So I think it
21 would be the same response.

22 MR. GALATI: If the Commission is
23 interested we do have Steve Clark, the expert who
24 did the engineering design if we wanted those
25 numbers more accurately than Mr. Stein has been

1 able to estimate.

2 PRESIDING MEMBER MOORE: Well, I think
3 that depends on what level Ms. Poole is going to.
4 What are you trying to establish here, and do you
5 need that level of detail to answer your question?
6 I mean it seems to me that your question has just
7 been answered.

8 MS. POOLE: I'm satisfied with the
9 response that I've received.

10 PRESIDING MEMBER MOORE: Okay. I think,
11 Counselor, the answer is no.

12 PRESIDING MEMBER MOORE: I think the
13 answer that the witness gave is generally correct.
14 But coming from the gas turbine industry, to
15 answer Ms. Poole's question, when you get into
16 totally different types of turbines like aircraft
17 turbines, the amount of power per pound of air is
18 quite different.

19 So they don't all have the same amount
20 of horsepower or kilowatt outage per pound of air
21 going through the engine. But in this class of
22 engines that we're talking about, the answer is
23 generally correct.

24 MS. POOLE: Thank you.

25 MR. STEIN: And if I could just clarify

1 my response. I understood that you were asking
2 that question on a per-turbine basis.

3 MS. POOLE: That's correct.

4 MR. STEIN: Yeah, okay.

5 MS. POOLE: Is the gas turbine vendor
6 for this project willing to guarantee a PM10
7 emission limit of 9 pounds per hour?

8 MR. STEIN: We have received a guarantee
9 of 9 pounds an hour for a portion of the
10 particulate exhaust.

11 MS. POOLE: For PM10 overall is the
12 vendor willing to guarantee a PM10 emission limit
13 of 9 pounds per hour?

14 MR. STEIN: No.

15 MS. POOLE: What level of PM10 emissions
16 overall does the vendor guarantee?

17 MR. STEIN: The turbine manufacturer
18 guaranteed an emission rate of 18 pounds an hour.

19 MS. POOLE: Will PM10 emissions from
20 this project be monitored with a continuous
21 emissions monitor?

22 MR. STEIN: They will be monitored with
23 extensive source testing that will be done twice
24 in the first year of operation. And those should
25 be very representative of typical operation.

1 There isn't much fluctuation there.

2 MS. POOLE: So PM10 emissions will not
3 be monitored with a continuous emissions monitor?

4 MR. STEIN: That's correct.

5 MS. POOLE: And how frequently do the
6 conditions in the final DOC require that PM10
7 emissions be monitored on an annual basis?

8 MR. STEIN: I'd have to check the DOC to
9 see. If you'll give me a moment.

10 MS. POOLE: That's all right, you don't
11 need to check it.

12 Are you familiar with district rule 4305
13 regarding steam generators?

14 MR. STEIN: I'm familiar that there are
15 district regulations regarding steam generators.
16 Perhaps you can tell me a little bit more about
17 what rule 4305 requires, and I can respond.

18 MS. POOLE: That's all right. Would you
19 please turn to page 5 of the ERC application
20 review for one of your NOx credits which is
21 included as attachment 10 to CURE's air quality
22 testimony.

23 (Pause.)

24 MS. POOLE: There are two exhibits in
25 that attachment; it's the second one. Entitled

1 ERC application review.

2 MR. STEIN: Yes, I have it.

3 MS. POOLE: The first paragraph of that
4 page, you're on page 5, correct?

5 MR. STEIN: Yes.

6 MS. POOLE: The first paragraph of that
7 page, that explains that the emission reductions
8 that form the basis of this ERC are the reductions
9 on oil-fired steam generators from an initial
10 limit of .4 pounds per million Btu to .14 pounds
11 per million Btu, correct?

12 MR. STEIN: I'd like to take a moment to
13 review this, please.

14 (Pause.)

15 MR. STEIN: Okay, I've looked it over
16 briefly.

17 MS. POOLE: Would you like me to re-ask
18 the question?

19 MR. STEIN: Would you please.

20 MS. POOLE: The emission reductions that
21 form the basis of this ERC are the reductions on
22 oil-fired steam generators from an initial limit
23 of .4 pounds per million Btu to .14 pounds per
24 million Btu, correct?

25 MR. STEIN: My plain reading of this

1 report would indicate that that's what the report
2 represents. I would note that this report was
3 done by a Mr. Richard Karrs who I assume is a
4 representative of the San Joaquin Valley Unified
5 APCD. And he would be the person who could
6 respond definitively as to your question.

7 But a plain reading of the report would
8 indicate that's correct.

9 MS. POOLE: This is one of the ERCs that
10 the project is relying on, correct?

11 MR. STEIN: I would have to check with
12 the applicant to respond to that. Would you give
13 me a moment?

14 MS. POOLE: Sure.

15 (Pause.)

16 MR. STEIN: I can't tell based on the
17 information that's here whether or not that's true
18 or not.

19 MS. POOLE: Okay. I'm not trying to
20 trick you. I just want to confirm that this is
21 what these documents --

22 MR. STEIN: I understand.

23 MS. POOLE: Okay.

24 MR. STEIN: I would just note that these
25 are project, you know, the reason for my

1 hesitation is there's a project number here that
2 doesn't correspond to a banking certificate
3 number. The only thing that's here are ATCs and I
4 don't have another document to make a cross-
5 comparison to be able to answer your question
6 definitively.

7 MS. POOLE: Okay. Just for the record,
8 this project number does correspond to the NOx ERC
9 S-0160-2.

10 Now, could you also please turn to page
11 5 of the other document in attachment 10, which is
12 the CARB RACT determination dated July 18, 1991.

13 MR. GALATI: Sorry, what page number was
14 that?

15 MS. POOLE: Page 5. Do you have that in
16 front of you?

17 MR. STEIN: Yes.

18 MS. POOLE: This determination states
19 that RACT for nongas-fired generators is a NOx
20 emission limit of .15 pounds per million Btu,
21 correct?

22 MR. STEIN: Yes.

23 MS. POOLE: Thank you. That's all my
24 questions.

25 PRESIDING MEMBER MOORE: Where were you

1 going with that? I'm mystified as to your pulling
2 that out on the table. What have you just
3 validated by doing that?

4 MS. POOLE: As you've heard, the
5 representative from the San Luis Obispo Air
6 District testified to emission reduction credits
7 have to be adjusted periodically. They have to be
8 RACT adjusted. And they have to be adjusted based
9 on other requirements including district rules and
10 other requirements.

11 PRESIDING MEMBER MOORE: Right.

12 MS. POOLE: I am trying to clarify
13 what -- the basis for this particular ERC and what
14 the requirements are -- were at the time this ERC
15 was banked and also are currently, under district
16 rules.

17 PRESIDING MEMBER MOORE: Thank you.

18 MR. GALATI: I've been informed that the
19 district can reappear on Thursday to answer any
20 questions regarding that, as well.

21 HEARING OFFICER FAY: Any other
22 questions for the panel?

23 MS. POOLE: No questions.

24 MR. GALATI: Mr. Stein, regarding the --

25 HEARING OFFICER FAY: Just a minute,

1 Mr. Galati.

2 EXAMINATION

3 BY HEARING OFFICER FAY:

4 Q Ms. Field, on page 16 of your testimony
5 you cite a mistake made by staff that I believe
6 was based on information provided in the AFC. Are
7 you clear on why that mistake was made?

8 A Is this with regard to the start-
9 up/shut-down emissions?

10 Q Yes.

11 A Yes, I believe we're clear on that. I'm
12 clear on that.

13 Q And what was the confusion there, based
14 on your understanding?

15 A Okay, let me ask a question then. Your
16 question is in regard to our correction of the
17 table air7?

18 Q Yes.

19 A Oh, okay. It's my recollection that
20 staff had used the emission rates from a single
21 turbine instead of two turbines.

22 Q Just was a misunderstanding?

23 A I believe so, yeah. Probably --
24 well, --

25 MR. STEIN: Basically I think what the

1 staff did was they determined that a different
2 start-up scenario than the one represented by
3 applicant and modeled by applicant would be
4 appropriate to evaluate.

5 So they attempted to take our modeling
6 results and simply scale those results for the
7 difference between the start-up scenario that they
8 conjectured and the one that we modeled, since the
9 model results are proportional to the emission
10 rate.

11 And that would be an appropriate
12 procedure to follow, but for the fact that the
13 scaling was done on the emission rate of a single
14 turbine instead of the emission rate of both
15 turbines.

16 So, we were simply pointing out that
17 there should be a different ratio than the one
18 that staff used. The approach, we think, is
19 generally acceptable.

20 HEARING OFFICER FAY: All right, and
21 I'll ask any of you on the panel, in Ms. Fields'
22 testimony on page 22, she notes that they disagree
23 with staff's air quality 17 and 18. Is that now -
24 - has that been satisfied, based on the staff
25 revisions?

1 MS. FIELDS: Yes.

2 HEARING OFFICER FAY: And I assume, Mr.

3 Stein, you agree with -- you now agree with

4 staff's testimony on the ERCs, the adequacy of the

5 ERCs?

6 MR. STEIN: Yes.

7 HEARING OFFICER FAY: That's all. Ms.

8 Holmes?

9 MS. HOLMES: I'm sorry?

10 HEARING OFFICER FAY: Anything further?

11 MS. HOLMES: No.

12 REDIRECT EXAMINATION

13 BY MR. GALATI:

14 Q Mr. Stein, regarding the PM10 emission

15 limit guarantee, can you please explain for the

16 Committee how Sunrise will satisfy the 9 pound per

17 hour on PM10?

18 A Well, Sunrise will ultimately satisfy

19 the requirement for 9 pounds an hour by performing

20 compliance source test measurements that will be

21 conducted using approved source test measurement

22 methods and witnessed by representatives of the

23 air district.

24 Our basis for recommending to the

25 district an emission rate of 9 pounds an hour was

1 based on an evaluation of the emission
2 characteristics of another turbine that is nearly
3 identical to the one that will be used by Sunrise.
4 And taking that emission rate data and scaling it
5 based on the amount of condensable particulate
6 matter that would be expected from a typical
7 combustion turbine operating in a similar
8 operating environment.

9 Q And is it correct that the DOC requires
10 Sunrise, as a condition, to meet that 9 pounds per
11 hour?

12 A Yes. The DOC limits Sunrise to a 9
13 pound per hour PM10 emission rate.

14 MR. GALATI: No further questions.

15 EXAMINATION

16 HEARING OFFICER FAY: Just one follow-
17 up. Is that turbine the Crockett Power Plant?

18 MR. STEIN: It is, yes.

19 VICE CHAIRMAN ROHY: It's intriguing to
20 see how you're going to achieve 9 pounds as
21 opposed to the manufacturer's guarantee of 18. My
22 understanding of your response, and correct me if
23 I'm wrong, is that you know of a similar turbine,
24 in this case Crockett, that in fact is achieving a
25 similar result, is that correct?

1 MR. STEIN: Yes, if we look at the
2 measurement data for Crockett we've satisfied
3 ourselves that that emission rate is consistent
4 with an emission rate of 9 pounds an hour with a
5 bit of margin.

6 VICE CHAIRMAN ROHY: I'm not an expert
7 at all on PM10, it's almost like saying I'm not an
8 attorney, but I won't go there. But I do know
9 about NOx and other pollutants from gas turbines.
10 And they do vary with ambient temperature,
11 elevation and other meteorological properties.

12 Have you taken that into account that
13 your site may be different from the site of
14 Crockett, and in fact your results may be
15 different?

16 MR. STEIN: We wouldn't expect too much
17 difference with particulate matter, and the PM10
18 emission rate is primarily a function of the
19 quality of the gas and the combustion efficiency;
20 and to a lesser extent on the PM10 levels in the
21 ambient air.

22 There are high efficiency filters on all
23 these machines that tend to neutralize that
24 component or levelize that component. And the
25 ambient temperature, while it, you know, may come

1 into play, I'm not sure would come into play in a
2 measurable way.

3 VICE CHAIRMAN ROHY: Thank you.

4 HEARING OFFICER FAY: Anything further,
5 Mr. Galati?

6 MR. GALATI: No further questions.

7 MS. POOLE: I have one recross.

8 HEARING OFFICER FAY: Within the scope?

9 MS. POOLE: Yes.

10 HEARING OFFICER FAY: All right.

11 RE CROSS-EXAMINATION

12 BY MS. POOLE:

13 Q Mr. Stein, the Crockett data that you
14 just referred to only measures one part of the
15 PM10 emissions, correct?

16 A The Crockett data measures what's called
17 the front-half, or filterable particulate.

18 MS. POOLE: Thank you.

19 HEARING OFFICER FAY: Ms. Holmes, do you
20 have a witness?

21 MS. HOLMES: Do you want me to call my
22 witness? Yes, we can recall Mr. Loyer.

23 Whereupon,

24 JOSEPH LOYER

25 was recalled as a witness herein and having been

1 previously duly sworn, was examined and testified
2 further as follows:

3 MS. HOLMES: Mr. Loyer has been sworn,
4 so we'll just step right into this.

5 DIRECT EXAMINATION

6 BY MS. HOLMES:

7 Q Could you please summarize your
8 testimony on operational impacts of the project?

9 A Yes. We evaluated the project for
10 start-up, full load, daily and annual emissions.
11 We determined the impacts to be potentially
12 significant for PM10, and very close to
13 significant for NO2, although under the standard.

14 We looked at fumigation, found no
15 impacts under fumigation.

16 We evaluated, to a certain extent, the
17 ERCs that were provided, and we found them to be
18 under a certain amount of duress from EPA, but
19 that is a discussion between EPA and the air
20 district, in our view, since we have no real
21 jurisdiction there.

22 On a daily basis we found that the ERCs
23 provided more than offset the project emission
24 impacts when we did not take into account the
25 distance ratio as is the policy of the Energy

1 Commission.

2 PRESIDING MEMBER MOORE: Counselor, do
3 you have any questions?

4 MS. HOLMES: Excuse me, I have two more
5 questions on direct. I'm sorry.

6 BY MS. HOLMES:

7 Q Earlier you heard testimony from the
8 witnesses for Sunrise, both about staff's
9 condition of certification 37 and about the table
10 that's been identified as Air7.

11 Could you respond to those comments made
12 by Sunrise?

13 A Condition 37 is unfortunately a
14 duplicate of condition 35. Don't know how that
15 slipped through. We have four levels of review
16 and it still got by.

17 As for air quality table 7, this was an
18 unfortunate error on my part that was brought up
19 in the PSA, that through everything that was going
20 on I neglected to correct.

21 Q So do you agree with Sunrise's
22 characterization?

23 A I do.

24 MS. HOLMES: Thank you. Those are all
25 my questions.

1 PRESIDING MEMBER MOORE: Thank you, Ms.
2 Holmes. Counselor.

3 MR. GALATI: No questions.

4 PRESIDING MEMBER MOORE: Ms. Poole.

5 MS. POOLE: Thank you.

6 CROSS-EXAMINATION

7 BY MS. POOLE:

8 Q Mr. Loyer, is the Energy Commission
9 staff relying in its testimony on ERCs that have
10 been disputed by EPA to conclude that there are no
11 significant impacts?

12 A Yes, we are.

13 Q In your supplemental testimony you
14 address some issues about the district's
15 calculation of potential to emit. The district
16 rules require that the amount of offsets provided
17 by a project be based on the project's potential
18 to emit, correct?

19 A That's correct.

20 Q And district rules state that a
21 project's potential to emit equal the maximum
22 capacity of the project to emit a pollutant under
23 its physical and operational design, limited only
24 by an emission limitation, quote, "incorporated
25 into the applicable permit as an enforceable

1 permit condition" unquote. Is that correct?

2 A That is correct.

3 Q The district calculated the project's
4 potential to emit based on a 20-minute start-up,
5 correct?

6 A That's correct.

7 Q Has the district imposed an enforceable
8 permit condition limiting start-ups to 20 minutes?

9 A No, they have not.

10 Q On page 33 of the FSA, your testimony,
11 you state that the increase in SO2 emissions by
12 this project will be compensated by the PM10
13 offsets required to bring Texaco's stationary
14 source balance to zero.

15 These PM10 offsets that you're relying
16 on are required by the district to offset
17 preexisting PM10 increases, correct?

18 A In part they are.

19 Q What's the other part?

20 A The project's direct PM10 emissions.

21 Q Any increases in secondary PM10 from the
22 project's emissions of SO2 would be in excess of
23 these preexisting increases, correct?

24 A If such secondary PM10 existed that
25 would be correct.

1 Q On page 1 of your supplemental testimony
2 you state that the staff now finds that the
3 project complies with all LORS, which was a change
4 from your previous testimony issued on December
5 17th.

6 A That's correct.

7 Q Air district rules are applicable LORS,
8 aren't they?

9 A They are.

10 Q And district rules 2201 and 2301 require
11 that the ERCs used for this project be surplus,
12 correct?

13 A They do.

14 Q Are you familiar with district rule
15 2201, section 4.3.3 which requires that other
16 facilities owned or operated by an applicant or by
17 any entity controlling, controlled by or under
18 common control with an applicant be in compliance
19 with all applicable emission standards and
20 limitations?

21 A Yes, I am.

22 Q Have you reviewed attachment 21 to
23 CURE's air quality testimony?

24 A Yes, I did. I just didn't bring it up
25 with me.

1 Q Okay.

2 A Didn't have that much space for it.

3 Q Does that attachment identify several
4 notices of violation pending against Texaco and
5 its affiliates?

6 A Looks like about six pages worth.

7 Q And that equipment is not in compliance
8 with district rules, is that right?

9 A That is up to the district to determine.

10 Q That list was issued by the district,
11 correct?

12 A It appears to be.

13 Q What's the limit imposed by your
14 recommended conditions of certification on ammonia
15 slip?

16 A We've limited them to 10 ppm.

17 Q And the applicant's not required to meet
18 anything lower than that, are they?

19 A They are not.

20 Q On page 30 of the FSA you assume that
21 ammonia slip will typically be in the range of 1
22 to 2 ppm to conclude that secondary PM10 emissions
23 will be insignificant.

24 This limit of 1 to 2 ppm is not imposed
25 in a condition of certification, is it?

1 A No, it's not.

2 Q Do you think the applicant can meet a
3 limit of 1 to 2 ppm ammonia slip?

4 A I would say probably about 60 percent of
5 the time they probably could.

6 PRESIDING MEMBER MOORE: What are you
7 basing that on?

8 MR. LOYER: Just experience from seeing
9 other power plants using ammonia. Most of the
10 time the power plants tend to keep the ammonia
11 slip very low because they're losing money if they
12 have slip, so --

13 PRESIDING MEMBER MOORE: Four times out
14 of ten they're going to miss that?

15 MR. LOYER: Well, one to two ppm is a
16 pretty --

17 PRESIDING MEMBER MOORE: I mean if
18 they're losing money it seems like --

19 MR. LOYER: -- strict limit --

20 PRESIDING MEMBER MOORE: Right, but if
21 they're losing money it seems like that's big
22 money in this case.

23 MR. LOYER: Well, ammonia.

24 PRESIDING MEMBER MOORE: Yeah, the cost
25 of, plus the manhours to get it back, get it

1 cranked back into alignment again. Four times out
2 of ten, 40 percent error rate, it seems pretty
3 high.

4 MR. LOYER: Well, to exceed a 2 ppm
5 limit would -- we'll say it's a 2 ppm per hour
6 limit, they would have about 15 minutes to adjust
7 back underneath it if they went over it.

8 So I think I'm being maybe a little over
9 conservative, but probably not by that much.

10 PRESIDING MEMBER MOORE: Okay.

11 VICE CHAIRMAN ROHY: Commissioner, they
12 often adjust the ammonia for dealing with upset
13 conditions. And I don't have a better number, but
14 it's usually why the numbers can range over quite
15 a large amount of space there.

16 And don't ask me what an upset condition
17 is.

18 (Laughter.)

19 BY MS. POOLE:

20 Q Your testimony on page 30 indicates that
21 a limit of 1 to 2 ppm can be achieved when the
22 catalyst is not degrading, correct?

23 A Yes, a limit of -- a 1 to 2 ppm ammonia
24 slip emission is typical of a catalyst in good
25 operating condition.

1 Q Can the applicant replace a catalyst
2 when it degrades?

3 A Yes.

4 Q Should the applicant replace a catalyst
5 when it degrades?

6 A The applicant should review the catalyst
7 to be replaced or reconditioned when it starts to
8 degrade.

9 Q What ammonia slip is associated with
10 ScoNOx?

11 A None.

12 Q Does ScoNOx achieve at least as
13 stringent NOx levels as have been proposed here?

14 A Not at this time.

15 Q If a turbine like this one is operating
16 in an area with lots of dust in the air, it will
17 have higher PM10 emissions than a turbine
18 operating in a dust-free environment, correct?

19 A I don't know for sure. I would imagine
20 it probably would, but the intake on these
21 turbines do have filters. So it may or may not.

22 Q Would it be fair to say that PM10
23 emissions depend, to some extent, on the input air
24 quality?

25 A Yes, to some extent they do.

1 Q Are PM10 levels in the Bay Area lower
2 than PM10 levels in the southern San Joaquin
3 Valley?

4 A If you can believe monitoring data, yes,
5 they are.

6 Q So an important factor in comparing
7 source tests would be what levels of PM10 other
8 plants in the southern San Joaquin Valley are
9 achieving, correct?

10 A It would be reasonable to take them into
11 consideration.

12 Q You attended the October 28th workshop
13 on biology and water impacts in this case,
14 correct?

15 A Yes, I did.

16 Q At that workshop you stated that an oil
17 field worker had recently been discovered
18 unconscious in the Midway Sunset oil field with
19 their H2S monitor ringing, correct?

20 A That is a story that was related to me,
21 yes.

22 MR. GALATI: Again, I'd object. We're
23 here on project operation. She can certainly
24 bring up the information that she wants to in
25 indirect impacts when we have somebody who can

1 respond.

2 HEARING OFFICER FAY: Yeah, does that
3 relate to project operation?

4 MS. POOLE: I can ask that question in
5 indirect.

6 HEARING OFFICER FAY: Right.

7 MS. POOLE: That's all I have.

8 HEARING OFFICER FAY: Any redirect?

9 MS. HOLMES: I have one question.

10 REDIRECT EXAMINATION

11 BY MS. HOLMES:

12 Q Mr. Loyer, to your knowledge, has ScoNOx
13 been installed successfully on a frame 7 turbine
14 yet?

15 A No, it has not.

16 MS. HOLMES: Thank you.

17 HEARING OFFICER FAY: Any recross based
18 on that?

19 MS. POOLE: One question.

20 RECROSS-EXAMINATION

21 BY MS. POOLE:

22 Q Has the Commission issued a permit which
23 requires the use of ScoNOx?

24 A To me?

25 Q Yes.

1 A I thought you might be asking the other
2 witness that.

3 I'd have to review the permit. I
4 believe it allows ScoNOx to be installed and if
5 ScoNOx does not perform as expected, then it can
6 be replaced with the standard DLNSCR arrangement.

7 Q And the permit you're referring to is
8 the LaPaloma?

9 A This is the LaPaloma, yes.

10 MS. POOLE: Thank you.

11 MR. LOYER: And this is only on one
12 turbine.

13 HEARING OFFICER FAY: Thank you. This
14 is a reasonable stopping place. And our plan at
15 this time is to pick up with biology in the
16 morning. And when that is done, we will return to
17 air quality.

18 We are adjourned until 9:00 tomorrow
19 morning.

20 (Whereupon, at 5:30 p.m., the hearing
21 was adjourned, to reconvene at 9:00
22 a.m., Tuesday, January 11, 2000, at this
23 same location.)

24 --o0o--

25

CERTIFICATE OF REPORTER

I, DEBI BAKER, an Electronic Reporter,
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I further certify that I am not of
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IN WITNESS WHEREOF, I have hereunto set
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